



STIC Search Report

EIC 1700

STIC Database Tracking Number: 168133

TO: Hoa V Le
Location: REM 9D61
Art Unit : 1752
October 7, 2005

Case Serial Number: 10/777308

From: Ross Shipe
Location: EIC 1700
REMSSEN 4B31
Phone: 571/272-6018
Ross.Shipe@uspto.gov

Search Notes

Examiner Le:

Please review the attached search results.

If you have any questions or if you would like to refine the search query, please feel free to contact me at any time.

Thanks you for using EIC 1700 search services!

Ross Shipe (ASRC)
Technical Information Specialist

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HOA VAN LE Examiner #: 60626 Date: 10/06/05
 Art Unit: 1752 Phone Number ~~30~~ 2-1332 Serial Number: 10/777,308
 Mail Box and Bldg/Room Location: REM 9D61 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR

Title of Invention: Sci. & Tech. Inf. Cntr.

Inventors (please provide full name): 00107 RECD

Pat. & T.M. Office

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for ① compounds of the general formula (VI) and ② for use in a photographic art

Thank you.

STAFF USE ONLY

| | Type of Search | Vendors and cost where applicable |
|--|------------------------|---|
| Searcher: <u>ROS</u> | NA Sequence (#) _____ | STN <input checked="" type="checkbox"/> _____ |
| Searcher Phone #: _____ | AA Sequence (#) _____ | Dialog _____ |
| Searcher Location: _____ | Structure (#) <u>1</u> | Questel/Orbit _____ |
| Date Searcher Picked Up: _____ | Bibliographic _____ | Dr.Link _____ |
| Date Completed: <u>10/07/05</u> | Litigation _____ | Lexis/Nexis _____ |
| Searcher Prep & Review Time: <u>30</u> | Fulltext _____ | Sequence Systems _____ |
| Clerical Prep Time: _____ | Patent Family _____ | WWW/Internet _____ |
| Online Time: <u>140</u> | Other _____ | Other (specify) _____ |

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-17 (canceled).

18. (currently amended): A method for forming images, the method comprising the steps of:

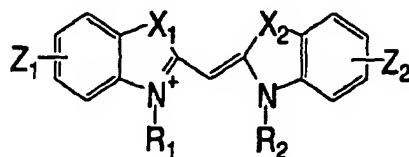
imagewise exposing a silver halide color photographic photosensitive material having, on a support, photographic constituent layers comprising at least one layer each of a blue-sensitive silver halide emulsion layer containing a yellow dye forming coupler, a green-sensitive silver halide emulsion layer containing a magenta dye forming coupler, a red-sensitive silver halide emulsion layer containing a cyan dye forming coupler, and a non-photosensitive hydrophilic colloid layer; and

subjecting the exposed silver halide color photographic photosensitive material to developing processing including a color developing step, a bleach-fix step and a rinsing step; wherein,

the blue-sensitive silver halide emulsion layer contains a silver halide emulsion with a silver chloride content of 90 mol% or more containing at least one member selected from the spectral sensitizing dyes represented by the following general formula (VI), and

the calcium content in the rinse solution used for the rinsing step is 5 mg/l or less;

General formula (VI)



(where R_1 and R_2 each independently represents a sulfopropyl group ~~a substituted or non-substituted hydrocarbon of 1 to 10 carbon atoms~~; A represents a counter ion required for balancing electric charges of a dye molecule; X_1 and X_2 each independently represents O, S, Se or $R_4N<$ (in which R_4 is a substituted or non-substituted alkyl, alkenyl or aryl); Z_1 represents a 5-substituted or non-substituted pyrrole, ~~a substituted or non-substituted furane or a substituted or non-substituted thiophene coupled directly to the benzene ring in the formula~~; and Z_2 represents a 5-chlorine atom ~~H, or a substituted or non-substituted pyrrole, a substituted or non-substituted furane, a substituted or non-substituted thiophene, a substituted or non-substituted lower alkyl, a substituted or non-substituted alkenyl, a substituted or non-substituted alkoxy, a halogen, a substituted or non-substituted aryl, a substituted or non-substituted aryloxy, or a substituted or non-substituted thioalkyl, any of which are bonded directly to the benzene ring in the formula~~).

19. (original): A method for forming images according to claim 18, wherein the silver halide emulsion in the blue-sensitive silver halide emulsion layer contains 0.02 to 1 mol% of silver iodide.

20. (original): A method for forming images according to claim 18, wherein the sphere-equivalent diameter of the grain contained in the silver halide emulsion in the blue-sensitive silver halide emulsion layer is 0.6 μm or less.

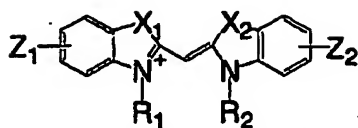
21. (original): A method for forming images according to claim 18, wherein a 6-coordination complex having Ir as a center metal and having at least one ligand other than halogen and cyan is contained in the silver halide emulsion in the blue-sensitive silver halide emulsion layer.

22. (original): A method for forming images according to claim 18, wherein the silver halide color photographic photosensitive material is exposed imagewise with a blue semiconductor laser at an oscillation wavelength of 430 to 460 nm.

23. (original): A method for forming images according to claim 18, wherein the color developing step is started within 9 seconds after imagewise exposure of the silver halide color photographic photosensitive material.

24. (original): A method for forming images according to claim 18, wherein the color developing step is conducted within 28 seconds.

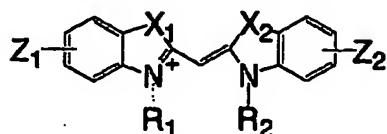
General formula (VI)





| Dye | X ₁ | X ₂ | Z ₁ | Z ₂ | R ₁ , R _{2a} |
|-------|----------------|----------------|----------------|-----------------|----------------------------------|
| VI-1 | O | S | 5- | 4,5-benzo | SP, SP |
| VI-2 | O | S | 5- | " | " |
| VI-3 | O | S | " | 5-Cl | " |
| VI-4 | S | S | " | " | " |
| VI-5 | S | S | " | =Z ₁ | " |
| VI-6 | S | O | 5- | 5-Cl | " |
| VI-7 | O | O | " | " | " |
| VI-8 | S | S | " | " | " |
| VI-9 | S | S | 5- | " | 3SB, SP |
| VI-10 | S | S | " | 5-F | 3SB, 3SB |
| VI-11 | S | S | " | =Z ₁ | " |
| VI-12 | S | S | 5- | " | SP, Et |
| VI-13 | O | S | " | " | SP, SP |
| VI-14 | S | O | " | 5-phenyl | " |
| VI-15 | S | S | " | 5-F | " |
| VI-16 | S | S | 5- | " | " |
| VI-17 | O | S | " | 4,5-benzo | " |

(continued)

General formula (VI)



| Dye | X ₁ | X ₂ | Z ₁ | Z ₂ | R ₁ , R ₂ |
|-------|----------------|----------------|--|-----------------|---------------------------------|
| VI-18 | S | S | " | =Z ₁ | " |
| VI-19 | O | O | 5-  | =Z ₁ | 3SB, SP |
| VI-20 | O | O | 5-  | =Z ₁ | 3SB, 3SB |

SP is 3-sulfopropyl, and 3SB is 3-sulfobutyl

The amount of the spectral sensitizing dye represented by the general formula (VI) to be added may vary within a wide range depending on the cases. Specifically, it is preferably in the range of 0.5×10^{-6} mol to 1.0×10^{-2} mol, and more preferably in the range of 1.0×10^{-6} mol to 5.0×10^{-3} mol per 1 mol of the silver halide.

<Mode of silver halide emulsion (particle)>

In regard to the shape of the silver halide particle in the silver halide emulsion (3), similar matters to those aforementioned in the above silver halide emulsion (1) are applied, and the suitable range is also similar.

The silver halide emulsion contains silver chloride, and the content of the silver chloride is preferably 90% by mol or more (provided that 90%



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



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L23 FILE 'LREGISTRY' ENTERED AT 15:22:45 ON 07 OCT 2005
STRUCTURE

L24 FILE 'REGISTRY' ENTERED AT 16:39:58 ON 07 OCT 2005

3 SEA SSS SAM L23

D SCAN

D QUE STAT

L26 STRUCTURE

L27 3 SEA SSS SAM L26

D SCAN

D QUE STAT

D SAV

DEL VAN308/Q

L28 32 SEA SSS FUL L26

SAV VAN308/A L28

L29 FILE 'ZCA' ENTERED AT 16:59:35 ON 07 OCT 2005

34 SEA ABB=ON PLU=ON L28

L30 FILE 'CAOLD' ENTERED AT 17:00:14 ON 07 OCT 2005

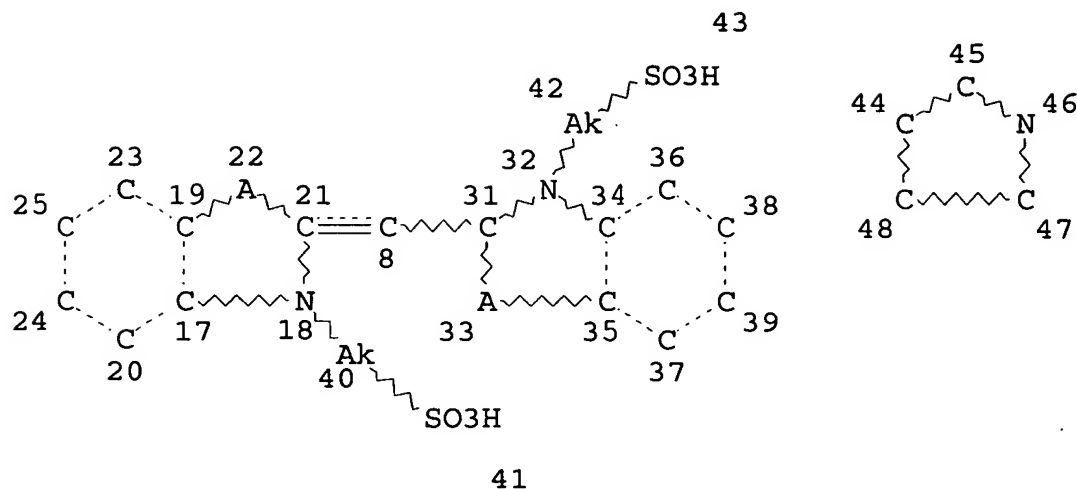
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L26 STR

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NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

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FILE LAST UPDATED: 6 Oct 2005 (20051006/ED)

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L29 ANSWER 1 OF 34 ZCA COPYRIGHT 2005 ACS on STN

142:186428 Preparation of silver halide emulsion and silver halide photosensitive film. Ikeda, Tadashi; Tanabe, Yasushi; Kawakami, Hiroshi; Suzumoto, Takeshi (Fuji Photo Film Co., Ltd., Japan). U.S. Pat. Appl. Publ. US 2005019712 A1 20050127, 61 pp. (English). CODEN: USXXCO. APPLICATION: US 2004-893885 20040720. PRIORITY: JP 2003-200390 20030723; JP 2003-285905 20030804; JP 2004-155001 20040525.

AB A silver halide emulsion with enhanced photog. sensitivity comprises silver halide grains covered with two dye layers in combination. The two dye layers comprises an inner dye layer adjoining to the silver halide grain, and contg. at least one sensitizing dye capable of spectrally sensitizing silver halide, and an outer dye layer adjoining to the inner dye layer, and contg. at least two dyes. The light absorption energy of the outer dye layer is equal to or higher than that of the inner dye layer, an energy-releasing wavelength of the outer dye layer overlaps with an energy-absorbing wavelength of the inner dye layer, the sensitizing dyes constituting the inner dye layer include an anion and/or betaine dyes, the dyes constituting the outer dye layer include an anion and cation dyes, and the anion dye is more than the cation dye in terms of an addn. amt. and/or an adsorption amt.

IT 833460-10-9

RL: TEM (Technical or engineered material use); USES (Uses)
(prepn. of silver halide emulsion and silver halide photosensitive film)

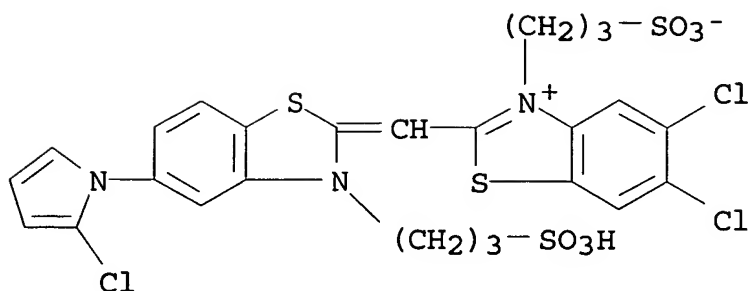
RN 833460-10-9 ZCA

CN Benzothiazolium, 5,6-dichloro-2-[[5-(2-chloro-1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 833460-09-6

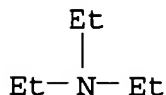
CMF C25 H22 Cl3 N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C001-005

INCL 430567000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 23216-67-3 27268-50-4 41664-70-4 55425-23-5 65293-95-0
 106518-54-1 206280-31-1 210482-95-4 719307-41-2 763103-83-9
 769971-05-3 833460-06-3 833460-08-5 **833460-10-9**
 833460-11-0 833460-13-2 833460-14-3 833460-15-4 833460-16-5

RL: TEM (Technical or engineered material use); USES (Uses)
 (prepn. of silver halide emulsion and silver halide
 photosensitive film)

L29 ANSWER 2 OF 34 ZCA COPYRIGHT 2005 ACS on STN

140:172081 Silver halide photographic emulsion in photographic paper.
 Ochiai, Haruo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo
 Koho JP 2004037558 A2 20040205, 104 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 2002-190883 20020628.

AB The title silver halide photog. emulsion contains spectral
 sensitizing dyes adsorbed on silver halide grains and is spectrally
 sensitized, wherein the fluorescent quantum yield of the spectral
 sensitizing dye is $\leq 5\%$. The photog. paper shows high
 sensitivity and improved sensitivity change by exposure temp.

IT 161710-69-6

RL: TEM (Technical or engineered material use); USES (Uses)
 (Photog. spectral sensitizers; silver halide photog. emulsion in

photog. paper)

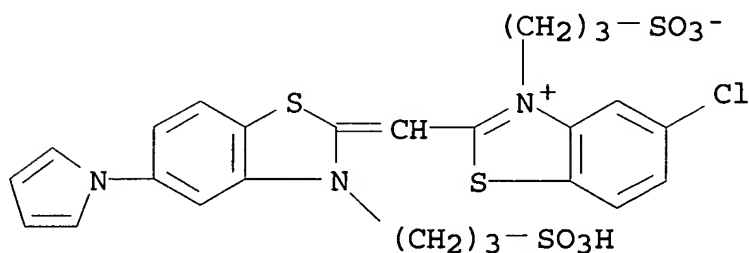
RN 161710-69-6 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161710-68-5

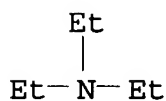
CMF C25 H24 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C001-16

ICS G03C001-035; G03C001-12; G03C001-29; G03C005-08; G03C007-407

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 75260-71-8 90895-32-2 102731-88-4 113477-02-4 115751-41-2

117047-63-9 139536-92-8 161710-69-6 166523-33-7

179638-69-8 364366-84-7 364366-85-8 364366-86-9 364366-89-2

364366-91-6 364366-92-7 391879-86-0 654072-22-7 654072-23-8

654072-24-9 654072-25-0 654072-26-1 654072-27-2

RL: TEM (Technical or engineered material use); USES (Uses)

(Photog. spectral sensitizers; silver halide photog. emulsion in photog. paper)

L29 ANSWER 3 OF 34 ZCA COPYRIGHT 2005 ACS on STN

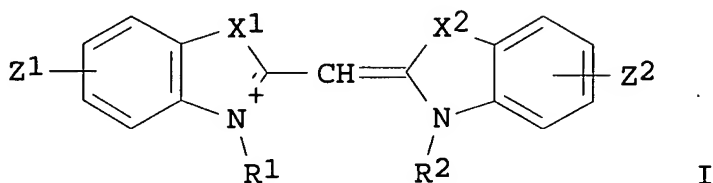
139:330241 Color photographic process using spectrally sensitized silver chloride-rich emulsion. Oshima, Naoto (Fuji Photo Film Co., Ltd.,

Japan). Jpn. Kokai Tokkyo Koho JP 2003302721 A2 20031024, 44 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-111246 20020412.

GI

C₂₇H₃₀N₂

Stereo: ns



AB The process is for a Ag halide color photog. material comprising each ≥ 1 blue-, green-, and red-sensitive emulsion layer contg. a yellow, a magenta, and a cyan coupler. The material contg. ≥ 90 mol% AgCl sensitized with ≥ 1 spectral sensitizer I [R1, R2 = C1-10 (un)substituted hydrocarbon; A = counter ion; X1, X2 = O, S, Se, R4N⁻; R4 = (un)substituted alkyl, alkenyl, aryl; Z1 = resp. (un)substituted pyrrole, furan, or thiophene, directly linked to a benzene ring; Z2 = H, resp. (un)substituted pyrrole, furan, thiophene, lower alkyl, alkenyl, alkoxy, aryl, aryloxy, thioalkyl, or halo, directly linked to the benzene ring] in the blue-sensitive layer, is rinsed with a soln. contg. Ca ≤ 5 mg/L. The material shows improved whiteness and stable color development.

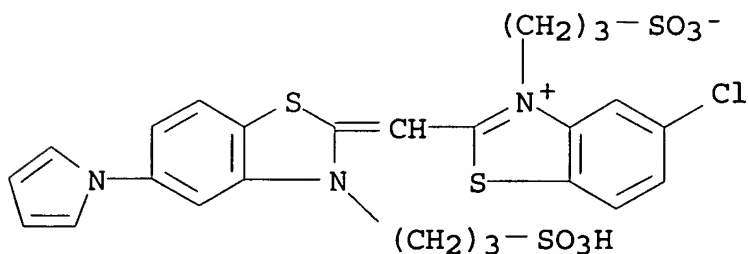
IT 161710-68-5

RL: MOA (Modifier or additive use); USES (Uses)

(processing of colored spectrally sensitized silver chloride-rich photog. emulsion contg.)

RN 161710-68-5 ZCA

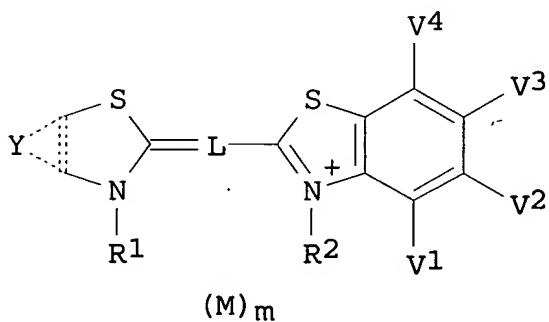
CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylydene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



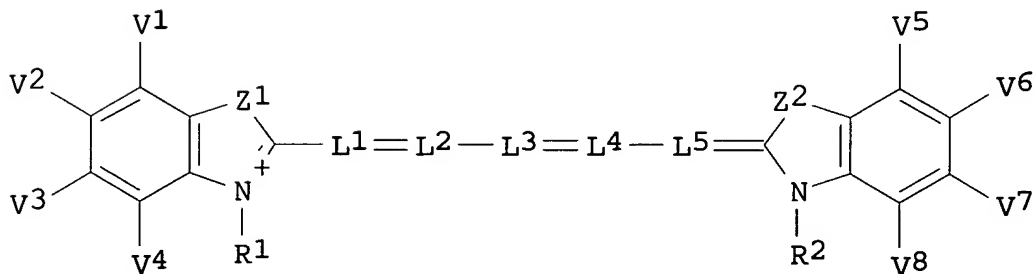
IC ICM G03C001-16
 ICS G03C001-035; G03C007-42
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 161710-68-5
 RL: MOA (Modifier or additive use); USES (Uses)
 (processing of colored spectrally sensitized silver chloride-rich photog. emulsion contg.)

L29 ANSWER 4 OF 34 ZCA COPYRIGHT 2005 ACS on STN
 139:108619 Silver halide photographic material for laser scanning digital exposure and image formation. Ochiai, Haruo; Nakamura, Akio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003202646 A2 20030718, 69 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-401863 20011228.

GI



I



II

AB The material has at least Ag halide emulsion layers characterized as follows, contg. a yellow, a magenta, and a cyan coupler, resp., a color mixing preventing layer, and a protective layer. The Ag halide emulsion layer (A) contg. the yellow coupler contains a blue-sensitive Ag halide emulsion (B) with AgCl ≥ 90 mol.%

contg. ≥ 1 blue-sensitive sensitizing dye I (Y = atoms required to form a benzene or a heterocyclic ring, which may be condensed with other hydrocarbon or heterocyclic ring or may be substituted; R1, R2 = alkyl, aryl, heterocycle; V1-4 = H, substituent, these do not form condensed ring; L = methine; M = counter ion; m = charge neutralization no. ≥ 0). The material with the layer A is exposed by a blue semiconductor laser (C) with 30-60 nm shorter wavelength than spectral max. wavelength of the emulsion B. The Ag halide emulsion layer (D) contg. the cyan coupler contains a red-sensitive Ag halide emulsion (E) with AgCl ≥ 90 mol.% contg. ≥ 1 red-sensitive sensitizing dye II [Z1 = N, O, S, Se; Z2 = O, S, Se; L1-5 = methine; R1, R2 = (substituted) alkyl; R1 and L1, and R2 and L5 may form a 5- or 6-membered ring; V1-8 = H, halo, alkyl, acyl, acyloxy, alkoxycarbonyl, carbamoyl, sulfamoyl, carboxy, CN, OH, amino, acylamino, alkoxy, alkylthio, alkylsulfonyl, sulfo, aryloxy, aryl; Y1 = counter ion; s = charge neutralization no. ≥ 0]. The material with the layer D is exposed by a red semiconductor laser (F) with 40-80 nm shorter wavelength than spectral max. wavelength of the emulsion E. The material with the layer A and D is exposed by the laser C and F, resp. Those materials provide images of uniform quality at changed exposure temp., and is suited for both digital and analog exposure.

IT 161710-69-6

RL: TEM (Technical or engineered material use); USES (Uses) (blue-sensitizer; photog emulsion contg. blue and red sensitizers suited for exposure with laser beam shorter than max absorption wavelength)

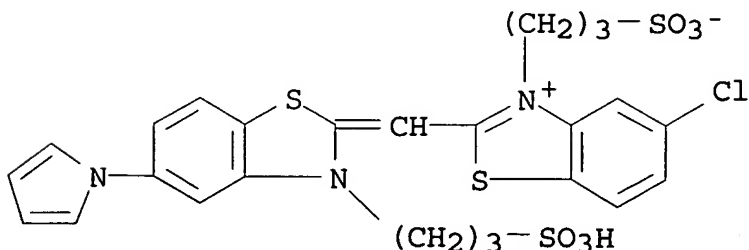
RN 161710-69-6 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161710-68-5

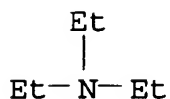
CMF C25 H24 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C005-08

ICS G03C001-035; G03C001-16; G03C001-20; G03C001-76; G03C007-407

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 102731-88-4 113477-02-4 161710-69-6 166523-33-7
364366-92-7 561029-59-2RL: TEM (Technical or engineered material use); USES (Uses)
(blue-sensitizer; photog emulsion contg. blue and red sensitizers
suited for exposure with laser beam shorter than max absorption
wavelength)

L29 ANSWER 5 OF 34 ZCA COPYRIGHT 2005 ACS on STN

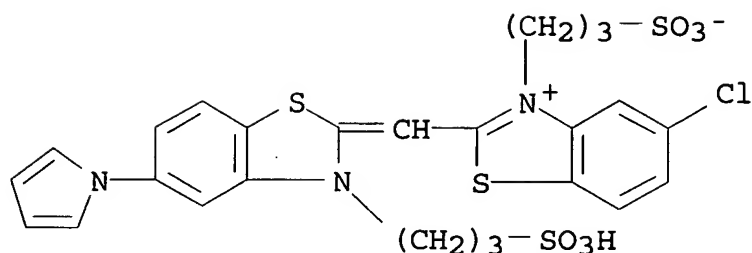
137:101349 Transparent imaging element with expanded color gamut.
Edwards, James Lawrence; Aylward, Peter Thomas; Camp, Alphonse
Dominic; Bourdelais, Robert Paul (Eastman Kodak Company, USA).
Brit. UK Pat. Appl. GB 2367373 A1 20020403, 121 pp. (English).
CODEN: BAXXDU. APPLICATION: GB 2001-20464 20010823. PRIORITY: US
2000-664496 20000918.AB An imaging element comprises a transparent polymer sheet, and at
least one photosensitive dye forming coupler contg. layer is on each
side of said sheet and wherein there are at least four sep.
photosensitive layers and the photosensitive layers comprise at
least four dye forming couplers that form at least four spectrally
distinct colors. Dye forming couplers include cyan, yellow,
magenta, red and blue. The invention provides an imaging material
with an improved color gamut while maintaining typical the 45 s
color development time.

IT 161710-68-5

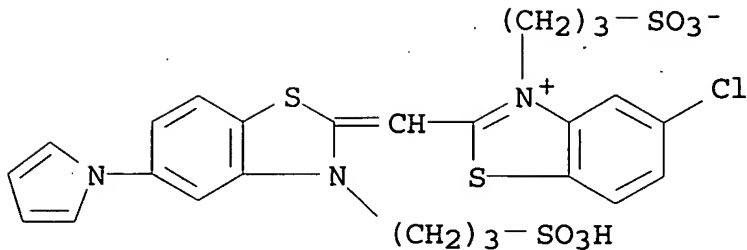
RL: TEM (Technical or engineered material use); USES (Uses)
(blue sensitive dye; photog. transparent imaging element with
expanded color gamut contg.)

RN 161710-68-5 ZCA

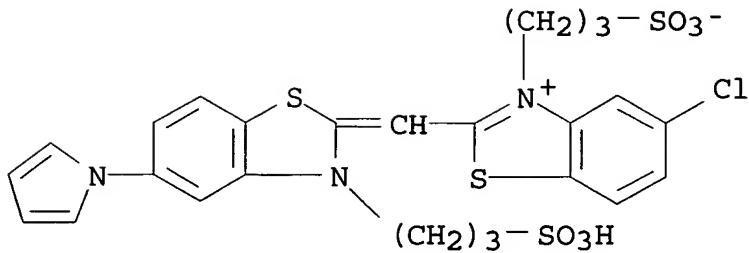
CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-
2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt
(9CI) (CA INDEX NAME)



- IC ICM G03C007-30
- CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- IT 161710-68-5 172210-73-0
RL: TEM (Technical or engineered material use); USES (Uses)
(blue sensitive dye; photog. transparent imaging element with expanded color gamut contg.)
- L29 ANSWER 6 OF 34 ZCA COPYRIGHT 2005 ACS on STN
- 137:26073 Duplitized display material with translucent support with specified face to back speed differential. Pawlak, John L.; McSweeney, Gary J.; Mydlarz, Jerzy Z.; Budz, Jerzy A.; Bell, Eric L.; Camp, Alphonse D.; Bourdelais, Robert P.; Aylward, Peter T. (Eastman Kodak Company, USA). U.S. US 6403292 B1 20020611, 48 pp. (English). CODEN: USXXAM. APPLICATION: US 2000-731689 20001206.
- AB The invention relates to a photog. element comprising a base material, at least one exposure side photosensitive silver halide layer, and at least one backside photosensitive silver halide layer, wherein said face side photosensitive layer has lower speed than said backside photosensitive layer, and wherein said base material has a percent transmission of 35-60%.
- IT 161710-68-5
RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; duplitized display material with translucent support with specified face to back speed differential contg.)
- RN 161710-68-5 ZCA
- CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



- IC ICM G03C001-46
ICS G03C001-795; G03C001-825; G03C005-29; G03C007-30
INCL 430434000
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 52049-36-2 64285-48-9 **161710-68-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; duplitized display material with translucent support with specified face to back speed differential contg.)
- L29 ANSWER 7 OF 34 ZCA COPYRIGHT 2005 ACS on STN
136:254501 Decorative package with expanded color gamut. Camp, Alphonse Dominic; Edwards, James Lawrence; Bourdelais, Robert Paul; Aylward, Peter Thomas (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1189109 A1 20020320, 86 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-203366 20010906. PRIORITY: US 2000-664511 20000918.
- AB This invention relates to a decorative package comprising a package having adhered thereto a label comprising a transparent polymer sheet, and at least one dye contg. layer is on each side of said sheet, wherein there are at least four sep. dye contg. layers and the dye contg. layers comprise at least four spectrally distinct colors.
- IT **161710-68-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(blue sensitizing dye; photog. decorative package with expanded color gamut)
- RN 161710-68-5 ZCA
CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C007-30
ICS G03C011-14
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **161710-68-5** 312959-06-1
RL: TEM (Technical or engineered material use); USES (Uses)
(blue sensitizing dye; photog. decorative package with expanded color gamut)

L29 ANSWER 8 OF 34 ZCA COPYRIGHT 2005 ACS on STN

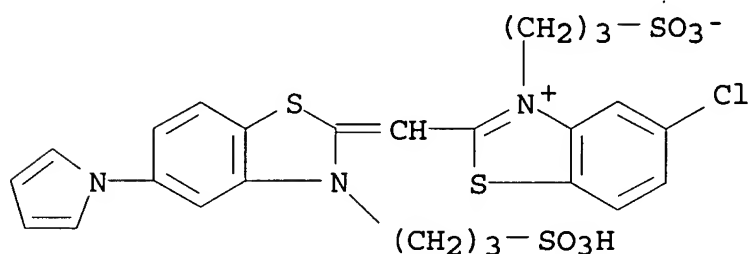
135:233832 Day/night silver halide photographic paper with expanded color gamut. Aylward, Peter T.; Bourdelais, Robert P.; Edwards, James L.; Camp, Alphonse D. (Eastman Kodak Co., USA). U.S. US 6291144 B1 20010918, 48 pp. (English). CODEN: USXXAM.
APPLICATION: US 2000-664517 20000918.

AB This invention relates to an imaging element comprising a translucent polymer sheet, and at least three photosensitive dye forming coupler contg. layers on the face side of said sheet, wherein said at least three photosensitive forming coupler contg. layers comprise a cyan dye forming layer comprising a cyan dye forming coupler in combination with a red sensitized photosensitive emulsion, a yellow dye forming layer comprising a yellow dye forming coupler in combination with a blue light sensitive photosensitive emulsion, a magenta dye forming layer comprising a magenta dye forming coupler and a green light sensitive photosensitive emulsion, and on the backside of said translucent polymer sheet at least one dye forming coupler that forms at least one dye that is spectrally distinct from the dyes on the face side of said translucent sheet. The invention provides a display imaging material with an improved color gamut while maintaining typical the 45 s color development that will, when imaged and developed, result in a bright sharp reflective image, when viewed in ambient front surface lighting conditions, as well as allowing for a pleasing image of sufficient dye d. when illuminated with a transmission light source. In a preferred form the invention provides a product that may be provided with a silver halide image on each side but still retain a single exposure step and short processing time.

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(day/night silver halide photog. paper with expanded color gamut)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-
2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt
(9CI) (CA INDEX NAME)

IC ICM G03C007-18

ICS G03C007-22; G03C007-26; G03C007-30

INCL 430359000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

IT 52049-36-2 61354-99-2 64285-48-9 92683-20-0 93951-12-3

129693-66-9 161710-68-5 168689-49-4 210706-50-6

237749-32-5 289708-41-4 312959-06-1

RL: TEM (Technical or engineered material use); USES (Uses)

(day/night silver halide photog. paper with expanded color gamut)

L29 ANSWER 9 OF 34 ZCA COPYRIGHT 2005 ACS on STN

135:233817 Photobleachable dye composition, image forming element, and
bleaching method. Goswami, Ramanuj; Farid, Samir Yacoub; Perry,
Robert J.; Zielinski, Paul A.; Gould, Ian Robert; Williams, Kevin W.
(Eastman Kodak Co., USA). Jpn. Kokai Tokkyo Koho JP 2001242584 A2
20010907, 50 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
2001-46176 20010222. PRIORITY: US 2000-510002 20000222.AB The compn. comprises a photobleachable dye and N-oxyazinium,
substantially free from a polymerizable monomer. The element has
≥1 image forming layer and ≥1 non-image forming layer,
contg. the obtained compn. The method involves processes of
exposing, processing, and then exposing the element to radiation
absorbed by the light bleaching dye or N-oxyazinium. The compn.
removed limitations from the processes for image formation.

IT 161710-68-5

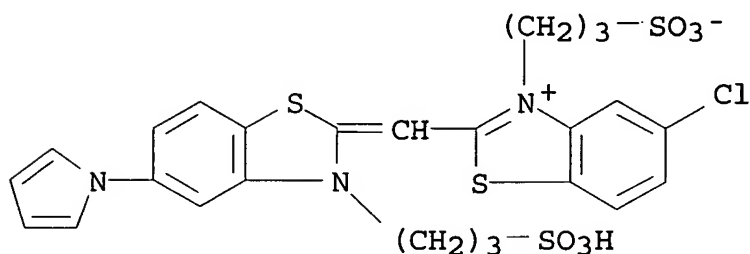
RL: DEV (Device component use); USES (Uses)

(dye; photobleachable compn. contg. dye and oxyazinium compd.)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-

2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt
(9CI) (CA INDEX NAME)



IC ICM G03C001-10
ICS G03C001-06; G03C001-83
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 41
IT 4719-41-9 4742-62-5 6200-35-7 7187-55-5 14898-73-8
18403-49-1 20904-74-9 23178-68-9 23368-55-0 23568-98-1
24690-67-3 26981-06-6 28317-17-1 28485-61-2 30377-70-9
47819-49-8 55425-22-4 60760-35-2 61389-30-8 62203-13-8
64285-48-9 68842-66-0 76850-82-3 76963-55-8 93374-19-7
99577-53-4 102187-53-1 105068-79-9 116450-43-2 116450-50-1
120334-92-1 125301-98-6 129604-78-0 138450-95-0 138496-68-1
141604-19-5 149975-97-3 155621-17-3 156412-39-4 160681-92-5
160681-94-7 **161710-68-5** 161710-76-5 161717-78-8
164578-03-4 182344-86-1 188342-91-8 188864-64-4 192204-68-5
205817-33-0 205817-41-0 220039-40-7 250736-12-0 253868-11-0
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334632-38-1 335065-51-5 337963-09-4 358642-09-8 359013-58-4
359013-59-5 359013-61-9 359013-62-0 359013-63-1 359013-64-2
359013-65-3 359013-66-4 359013-67-5 359013-68-6 359013-69-7
359013-70-0 359013-71-1 359013-72-2 359013-73-3 359013-74-4
359013-75-5 359013-76-6 359013-77-7 359013-78-8 359013-79-9
359013-80-2 359013-81-3 359013-82-4
RL: DEV (Device component use); USES (Uses)
(dye; photobleachable compn. contg. dye and oxyazinium compd.)

L29 ANSWER 10 OF 34 ZCA COPYRIGHT 2005 ACS on STN

135:233754 The colloidal stability of spectrally sensitized 3-D AgClI
emulsions. Sadasivan, Sridhar; Lobo, Lloyd A.; Wollman, Eric C.;
Jagannathan, Seshadri; Budz, Jerzy (Eastman Kodak Company,
Rochester, NY, USA). Journal of Imaging Science and Technology,
45(3), 234-240 (English) 2001. CODEN: JIMTE6. ISSN: 1062-3701.
Publisher: Society for Imaging Science and Technology.

AB The colloidal stability of silver halide emulsions pptd. in aq.
gelatin media is predominantly electro-steric in nature and is

provided by gelatin adsorbed on the silver halide grains. It is believed that gelatin provides adequate colloidal stability for spectrally sensitized silver halide emulsions, where the sensitizing dyes compete with gelatin for the silver halide surface. The authors examd. the details of the interaction of gelatin with unsensitized and sensitized 3-D AgClI emulsions by evaluating the interfacial potential of the emulsions and their colloidal stability as a function of pH and ionic strength. The interfacial potential of the emulsions has been detd. using electrokinetic sonic amplitude (ESA) measurements and the colloidal stability of the emulsions was studied using filterability measurements. The unsensitized and sensitized emulsions do not show any appreciable differences in their electrokinetic properties, while they do exhibit differences in their filterability properties upon pH cycling. It is surmised that gelatin is more easily desorbed from the surface of sensitized emulsions than unsensitized emulsions upon pH cycling, leading to aggregation. The authors conclude that the weaker adsorption of gelatin on silver halide emulsions is the root cause of the diminished colloidal stability of spectrally sensitized silver halide emulsions. The results suggest that sensitized silver halide emulsions are more prone to destabilization due to process variations than unsensitized silver halide emulsions.

IT 359013-49-3

RL: TEM (Technical or engineered material use); USES (Uses)
(colloidal stability of 3-D silver chloroiodide photog. emulsions as function of pH and ionic strength and spectral sensitizer)

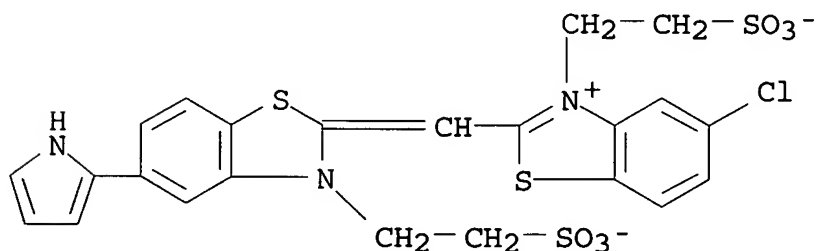
RN 359013-49-3 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-2-yl)-3-(2-sulfoethyl)-2(3H)-benzothiazolylidene]methyl]-3-(2-sulfoethyl)-, inner salt, ion(1-), N,N,N-triethylethanaminium (9CI) (CA INDEX NAME)

CM 1

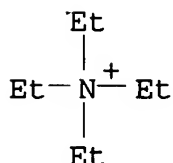
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CMF C23 H19 Cl N3 O6 S4



CM 2

CRN 66-40-0
CMF C8 H20 N



CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 359013-49-3

RL: TEM (Technical or engineered material use); USES (Uses)
(colloidal stability of 3-D silver chloriodide photog. emulsions as function of pH and ionic strength and spectral sensitizer)

L29 ANSWER 11 OF 34 ZCA COPYRIGHT 2005 ACS on STN

135:129504 Process for the preparation of high chloride emulsions containing iodide. Mehta, Rajesh V.; Budz, Jerzy A.; Hendricks, Jess B., III; Stapelfeldt, Heinz E.; Jagannathan, Seshadri; Jagannathan, Ramesh (Eastman Kodak Company, USA). U.S. US 6265145 B1 20010724, 15 pp., Cont.-in-part of U.S. 6,048,683. (English). CODEN: USXXAM. APPLICATION: US 1999-475405 19991230. PRIORITY: US 1998-218683 19981222.

AB The invention is directed to the prepn. of radiation-sensitive silver iodochloride emulsions useful in photog. including electronic printing methods where information is recorded in a pixel-by-pixel mode in a radiation-sensitive silver halide emulsion layer. A process for the prepn. of a radiation-sensitive Ag halide emulsion comprised of high chloride cubical Ag halide grains contg. from 0.05 to 3 mol% iodide, based on total Ag, where the iodide is incorporated in the grains in a controlled, nonuniform distribution forming a core contg. at least 50% of total Ag, an iodide free surface shell having a thickness of $>50 \text{ \AA}$, and a sub-surface shell that contains a max. iodide concn. is disclosed, the process comprising: (a) providing in a stirred reaction vessel a dispersing medium and host high chloride Ag halide cubical grains comprising a speed enhancing amt. of iodide, and (b) pptg. Ag halide onto the host grains by introducing at least a Ag salt soln. into the dispersing medium at a rate such that the normalized molar addn. rate, R_n , is $>3.0 + 10^{-2} \text{ min}^{-1}$, R_n satisfying the formula: $R_n = [Q_f + C_f]/M$ where Q_f is the volumetric rate of addn., in L/min, of Ag salt soln. into the reaction vessel; C_f is the concn., in moles/L, of the Ag salt soln.; and M is total moles of Ag halide in the host grains in the reaction vessel at the precise moment of addn. of the Ag salt soln. In a further aspect, this invention is

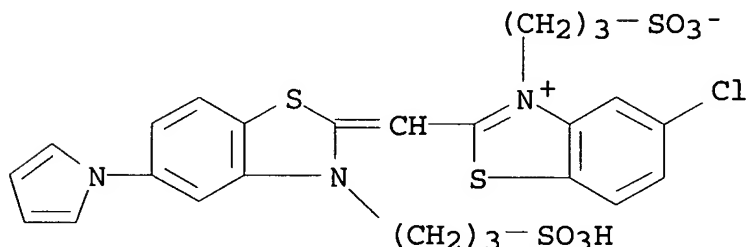
directed towards a photog. recording element comprising a support and ≥ 1 light sensitive Ag halide emulsion layer comprising Ag halide grains prepd. as described above. The advantages of the invention are generally accomplished in accordance with the discovery that when the exterior portion of profiled Ag iodochloride grains are grown under specific conditions of high molar addn. rates, iodochloride emulsions of enhanced sensitivity and photog. curve shape are produced, as speed can be increased while keeping fog to a low level.

IT 161710-68-5P

RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(prepn. of high silver chloride emulsions contg. iodide using)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-005

ICS G03C001-035

INCL 430569000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 5244-34-8P, 1,8-Dihydroxy-3,6-dithiaoctane 14070-48-5P,

1-(3-Acetamidophenyl)-5-mercaptopotetrazole 16920-56-2P

20792-40-9P 22615-69-6P 161710-68-5P 168689-49-4P

172871-88-4P 208471-42-5P 350990-73-7P, Lippmann bromide

RL: PEP (Physical, engineering or chemical process); PNU

(Preparation, unclassified); RCT (Reactant); PREP (Preparation);

PROC (Process); RACT (Reactant or reagent)

(prepn. of high silver chloride emulsions contg. iodide using)

L29 ANSWER 12 OF 34 ZCA COPYRIGHT 2005 ACS on STN

134:374005 High chloride emulsions doped with iridium complexes. Budz, Jerzy A.; Bell, Eric L.; Mehta, Rajesh V. (Eastman Kodak Company, USA). U.S. US 6242172 B1 20010605, 13 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-475841 19991230.

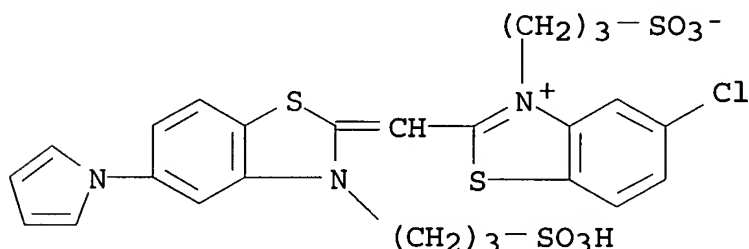
AB A radiation-sensitive emulsion is disclosed comprised of cubical silver halide grains contg. 0.05-3 mol% iodide, based on total silver, and an iridium coordination complex dopant, wherein (i) the iodide is incorporated in the grains in a controlled, non-uniform distribution forming a core contg. at least 50 percent of total silver, an iodide free surface shell having a thickness of greater than 50 Å, and a sub-surface shell that contains a max. iodide concn., and (ii) the iridium coordination complex dopant is incorporated into the sub-surface shell or into a region of the core extending up to 60% of the total silver into the grain from the sub-surface shell. Speed and reciprocity of iodochloride emulsions can be improved by localized addn. of known in the art reciprocity-controlling iridium dopants in relation to high iodide region of the grain. By carefully incorporating reciprocity-controlling dopant within a well defined band within a grain the difficulties of the prior art can be overcome.

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitizer in high chloride photog. emulsions)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-08

INCL 430567000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitizer in high chloride photog. emulsions)

L29 ANSWER 13 OF 34 ZCA COPYRIGHT 2005 ACS on STN

134:318594 Photographic element with excellent speed differential for digital and optical exposure devices. Ferguson, Pamela Mccue; Diehl, Donald Richard (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1094363 A2 20010425, 64 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV,

FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2000-203506 20001010. PRIORITY: US 1999-420746 19991020.

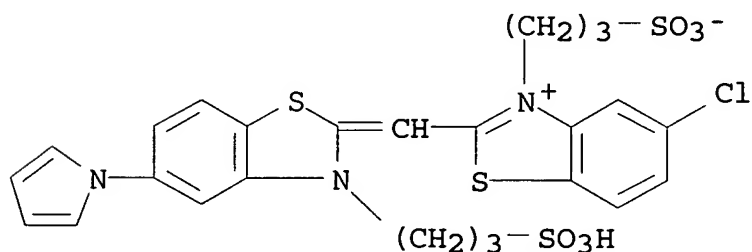
AB An imaging element comprises at least one silver halide emulsion wherein the silver halide emulsion grains incorporate a dopant which comprises a hexacoordination metal complex $[ML_6]_n$ ($n = 0, -1, -2, -3$ or -4 ; M is a filled frontier orbital polyvalent metal ion, other than iridium; and L6 represents bridging ligands which can be independently selected, provided that least four of the ligands are anionic ligands, and at least one of the ligands is a cyano ligand or a ligand more electroneg. than a cyano ligand), and wherein the emulsion has been spectrally sensitized with a sensitizing dye and contains a filter dye that (a) has a wavelength of absorbance max. which is less than about 15 nm different than the max. wavelength of emulsion sensitivity provided by the spectral sensitizing dye, and (b) has a half band width that is approx. equal to the half bandwidth of the sensitizing dye, thereby resulting in an emulsion which has a sensitivity at a wavelength of about 50 nm shorter than the max. wavelength of sensitization which is about 65% or greater of the emulsion speed at the max. wavelength of spectral sensitivity.

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(blue sensitizing dye in photog. element)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-83

ICS G03C001-12; G03C001-29; G03C001-40; G03C001-08

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(blue sensitizing dye in photog. element)

L29 ANSWER 14 OF 34 ZCA COPYRIGHT 2005 ACS on STN

134:302967 Silver halide photographic element with improved heat

sensitivity. Ferguson, Pamela Mccue; Lok, Roger; Chitty, Alton L.; Oneal, Norman Richard (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 1094360 A1 20010425, 29 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2000-203513 20001011. PRIORITY: US 1999-420726 19991020.

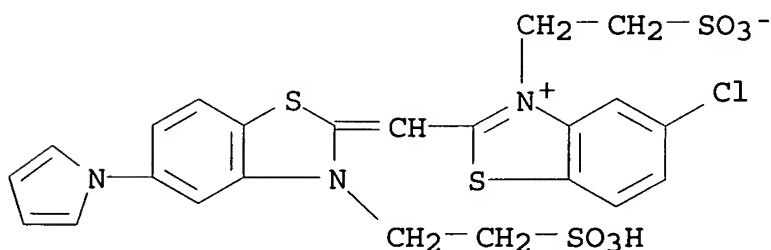
AB The invention relates to an element for forming photog. images and to the combination of emulsion sensitization and absorbing dyes for color paper. The invention relates to a photog. element comprising a support and a Ag halide emulsion layer wherein the Ag halide emulsion contains ≥ 1 absorber dye and ≥ 1 sensitizing dye. The wavelength of max. absorbance of the absorber dye and the wavelength of max. sensitivity of the emulsion provided by the spectral sensitizing dye are substantially the same. The emulsion is chem. sensitized with a stable and H₂O sol. Au(I) complex. This provides manufg. improvements, improved detail and sharpness, improved dodging and burning and lower cost without an unwanted increase in heat sensitivity.

IT **334632-37-0**

RL: NUU (Other use, unclassified); USES (Uses)
(blue sensitive emulsion for silver halide photog. paper with improved heat sensitivity contg.)

RN 334632-37-0 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(2-sulfoethyl)-2(3H)-benzothiazolylidene]methyl]-3-(2-sulfoethyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-09

ICS G03C001-12; G03C001-83

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **334632-37-0**

RL: NUU (Other use, unclassified); USES (Uses)
(blue sensitive emulsion for silver halide photog. paper with improved heat sensitivity contg.)

L29 ANSWER 15 OF 34 ZCA COPYRIGHT 2005 ACS on STN

134:287991 Tough reflective image display material. Aylward, Peter T.;

Bourdelaïs, Robert P.; Camp, Alphonse D. (Eastman Kodak Company, USA). U.S. US 6218059 B1 20010417, 40 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-470806 19991222.

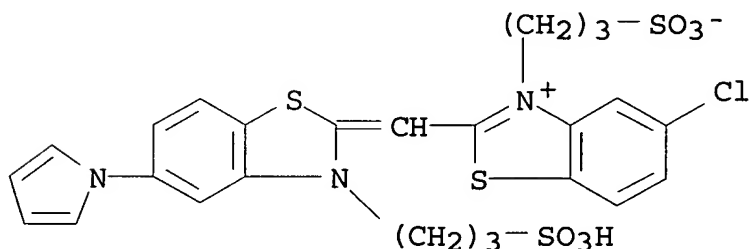
AB This invention relates to a photog. element comprising ≥ 1 photosensitive layer, and a base material comprising an upper and lower biaxially oriented polymer sheet sepd. by a paper sheet, wherein the base material has a thickness of $>254 \mu\text{m}$, a stiffness of >325 millinewtons in any direction, and an upper surface roughness of $<0.45 \mu\text{m}$ at a spatial frequency of between 0.30 and 6.35 mm, and a transmission% of $<15\%$.

IT 161710-68-5

RL: NUU (Other use, unclassified); USES (Uses)
(reflective image display photog. paper coated with image-support material contg.)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-79

ICS G03C001-765; G03C011-14

INCL 430011000

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 2682-20-4, N-Methylisothiazolone 5242-49-9, HOSTALUX KS
9002-88-4, Polyethylene 9003-07-0, Polypropylene 13463-67-7,
Titanium dioxide, uses 14070-48-5, 1-3-Acetamidophenyl-5-
mercaptotetrazole 26172-55-4, N-Methyl-5-chloroisothiazolone
61722-01-8, Ethylene-propylene-butylene copolymer 64285-48-9
161710-68-5 221461-23-0, SLP 9088

RL: NUU (Other use, unclassified); USES (Uses)

(reflective image display photog. paper coated with image-support material contg.)

L29 ANSWER 16 OF 34 ZCA COPYRIGHT 2005 ACS on STN

134:245176 Method for reducing the dye stain in photographic elements.

Farid, Samir Y.; Goswami, Ramanuj; Craver, Mary E.; Mangus, John M.
(Eastman Kodak Company, USA). U.S. US 6207359 B1 20010327, 14 pp.

(English). CODEN: USXXAM. APPLICATION: US 2000-510012 20000222.

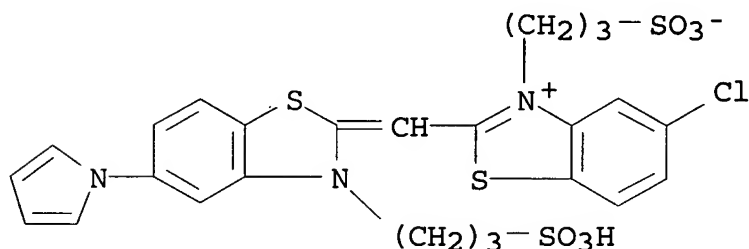
AB This patent disclosed a method for reducing dye stain of an exposed photog. element, said element comprising a support having thereon at least one image-forming layer contg. a photobleachable dye, the method comprising processing the element, and exposing the processed element, in presence of a N-oxyazinium, to radiation that can be absorbed either by the photobleachable dye or by the N-oxyazinium.

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye photobleachable by N-oxyazinium compds.)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-40

INCL 430390000

CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 6200-35-7 23368-55-0 23568-98-1 28317-17-1 28485-61-2
30377-70-9 55425-22-4 60760-35-2 62203-13-8 64285-48-9
125301-98-6 138450-95-0 141604-19-5 155621-17-3 160681-92-5
160681-94-7 161710-68-5 161710-76-5 220039-40-7
330601-68-8 330601-69-9 330601-70-2 330601-71-3 330601-72-4

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye photobleachable by N-oxyazinium compds.)

L29 ANSWER 17 OF 34 ZCA COPYRIGHT 2005 ACS on STN

134:139180 Photographic imaging system incorporating metadata recording capability. Edwards, James L. (Eastman Kodak Company, USA). U.S. US 6180312 B1 20010130, 37 pp. (English). CODEN: USXXAM.
APPLICATION: US 2000-532928 20000322.

AB The invention relates to a color neg. photog. element comprising a support, upon which is coated a blue sensitive silver halide layer contg. a yellow dye forming coupler, a green sensitive silver halide layer contg. a magenta dye forming coupler, a red sensitive silver halide layer contg. a cyan dye forming coupler, and a 4th sensitized layer contg. an IR dye forming coupler and wherein the dye formed by

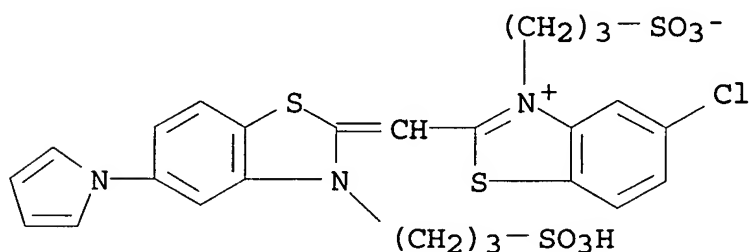
the IR dye forming coupler has a λ -max greater than 680 nm and wherein the d. of the absorption band of the characteristic vector of the cyan dye, normalized to 1.0 d., is less than 0.4 at 700 nm.

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye in photog. imaging system incorporating metadata recording capability)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-46

INCL 430140000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 64285-48-9 129693-66-9 136282-61-6 161710-68-5

312959-02-7 312959-04-9 312959-06-1 321750-19-0 321750-22-5

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye in photog. imaging system incorporating metadata recording capability)

L29 ANSWER 18 OF 34 ZCA COPYRIGHT 2005 ACS on STN

134:49132 Photographic element for color imaging. Edwards, James L. (Eastman Kodak Company, USA). U.S. US 6159674 A 20001212, 41 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-473911 19991228.

AB The invention relates to an improved silver halide photog. element for silver halide imaging systems. Disclosed is a color photog. element comprising at least 4 imaging layers including: a 1st light sensitive Ag halide imaging layer having assocd. therewith a cyan image dye-forming coupler; a 2nd light sensitive Ag halide imaging layer having assocd. therewith a magenta image dye-forming coupler; a 3rd light sensitive Ag halide imaging layer having assocd. therewith a yellow image dye-forming coupler; and a 4th light sensitive Ag halide imaging layer having assocd. therewith a 4th image dye-forming coupler for which the normalized spectral transmission d. distribution curve of the dye formed by the 4th

image dye-forming coupler upon reaction with color developer has a CIELAB hue angle, hab, of from $\geq 355^\circ$ to $\leq 75^\circ$. The element provides improved color gamut.

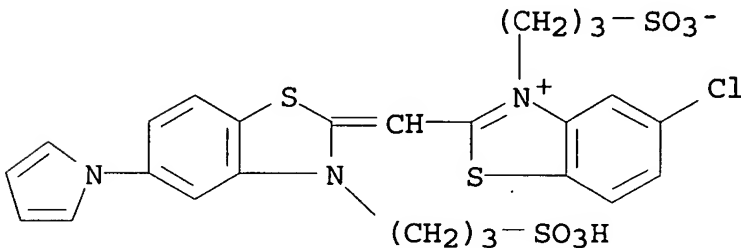
IT 161710-68-5

RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)

(silver chloride emulsion for color photog. paper sensitized with)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylydene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-73

INCL 430543000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 14070-48-5, 1-(3-Acetamidophenyl)-5-mercaptotetrazole 52049-36-2

119261-38-0 136282-61-6 156645-26-0 160649-43-4

161710-68-5 312959-02-7 312959-03-8 312959-04-9

312959-05-0 312959-06-1

RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)

(silver chloride emulsion for color photog. paper sensitized with)

L29 ANSWER 19 OF 34 ZCA COPYRIGHT 2005 ACS on STN

133:342409 Photographic element comprising a mixture of sensitizing dyes. Klingman, Karen J.; Kahn, Bruce E.; Parton, Richard L.; Dobles, Thomas R.; Stegman, David A.; Smith, Teresa A.; Lewis, John D. (Eastman Kodak Company, USA). U.S. US 6140035 A 20001031, 22 pp. (English). CODEN: USXXAM. APPLICATION: US 1998-151123 19980910.

AB A photog. element comprises at least one silver halide emulsion layer in which: the silver halide has been spectrally sensitized with a first blue sensitizing dye having a λ_1 less than or equal to about 475 nm and a second blue sensitizing dye having a λ_2 , wherein the following relationship is met: 0.12(eV)

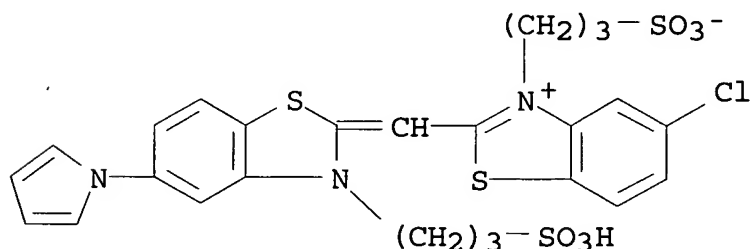
$\geq 1.25(\text{nm})(\text{eV}) \times 10^3 (1/\lambda_2 - 1/\lambda_1)$ (λ_1 is the wavelength in nanometers (nm) of max. absorption of a silver halide emulsion sensitized with the first dye and λ_2 is the wavelength of max. absorption of a silver halide emulsion sensitized with the second dye, with the proviso that neither the first nor the second dye contains selenium). The silver halide emulsion of said layer is chem. sensitized with a gold(I) compd. and preferably with the combination of a gold compd. and a disulfide compd.; and the silver halide has been chem. sensitized with a gold compd. of formula AuL_2X^- or $\text{AuL}(\text{L}_1)\text{X}^-$ (L is a mesoionic compd.; X is an anion; L_1 is a Lewis donor ligand).

IT 161710-68-5

RL: TEM (Technical or engineered material use); USES (Uses)
(photog. element comprising mixt. of sensitizing dyes)

RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-09

ICS G03C001-16; G03C001-29

INCL 430574000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 5244-34-8 55425-22-4 138450-95-0 141766-84-9 159632-55-0

161710-68-5 161710-76-5 169324-94-1 174079-63-1

177951-67-6 220939-85-5 220939-86-6 220939-87-7 220939-91-3

220939-92-4 304464-99-1 304465-50-7

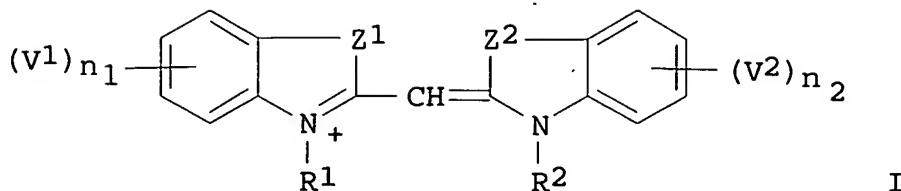
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. element comprising mixt. of sensitizing dyes)

L29 ANSWER 20 OF 34 ZCA COPYRIGHT 2005 ACS on STN

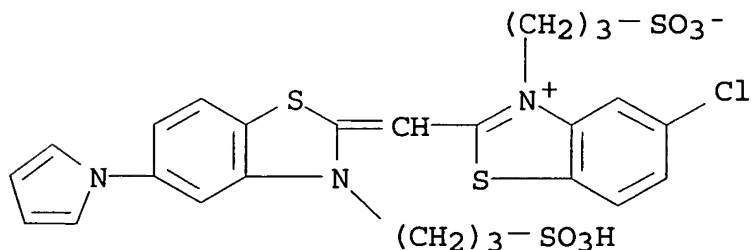
133:245050 Silver halide color photographic material containing specific spectral sensitizing dye and color image formation using it.

Nakahira, Shinichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000250163 A2 20000914, 58 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-51119 19990226.

GI



- AB The material comprising a support having thereon ≥ 3 different color sensitive emulsion layers, is characterized by (A) ≥ 1 Ag halide emulsion layer contains AgCl ≥ 95 mol%, sensitized with an spectral sensitizing dye I ($Z_1, Z_2 = S, Se, O$; $V_1, V_2 =$ monovalent substituent, V_1, V_2 are not arom. and may form a condensed ring; $R_1, R_2 =$ alkyl; $M_1 =$ counter ion; $m_1 > 0$; $n_1, n_2 = 0-4$) and (B) photog. structure layers contain 3.0-6.0 g/m² hydrophilic binder and Ca ≤ 6.0 mg/m². Color images are formed by scanning exposure of the obtained material and developing within 20s. The material prevents surface defects after processing and dye stains, showing improved rapid processing.
- IT **161710-68-5**
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (silver chloride-rich photog emulsion contg. benzothiazole deriv. spectral sensitizer)
- RN 161710-68-5 ZCA
- CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



- IC ICM G03C001-16
 ICS G03C001-00; G03C001-035; G03C001-047; G03C001-34; G03C007-392; G03C007-407
- CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT 90895-32-2 113477-02-4 **161710-68-5** 166523-33-7

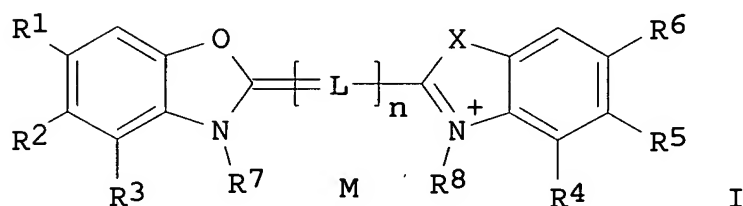
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(silver chloride-rich photog emulsion contg. benzothiazole deriv. spectral sensitizer)

L29 ANSWER 21 OF 34 ZCA COPYRIGHT 2005 ACS on STN

132:266445 Cyanine dyes as photographic sensitizers. Missfeldt, Michael (Agfa-Gevaert A.-G., Germany). Ger. Offen. DE 19845642 A1 20000406, 32 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1998-19845642 19981005.

GI



AB The cyanine dyes I [R1-6 = substituents, but ≥ 1 of R1-3 = indolyl group; X = O, S, Se, imino, CH = CH C(CH₃)₂; R7, R8 = alkyl, sulfoalkyl, carboxyalkyl, -(CH₂)₁SO₂YSO₂-alkyl, (CH₂)₁SO₂YCO-Alkyl, -(CH₂)₁COYSO₂-Alkyl, -(CH₂)₁COYO-Alkyl or -(CH₂)₁NHSO₃-, -(CH₂)₁N(Alkyl)SO₃- or -(CH₂)₁N(Aryl)SO₃- (l = 1-6, Y = NH, N-); n = 1, 3, 5, or 7; L = (un)substituted methine group] have high spectral sensitivity and good long-term stability. Coupling of indole with 5-bromo-2-methylbenzoxazole in the presence of CuBr gave 5-indol-1-yl-2-methylbenzoxazole, reaction of which with 1,3-propanesultone gave the corresponding 3-(3-sulfopropyl) compd., reaction of which with EtC(OEt)₃ in m-cresol gave the cyanine dye II. Use of the dyes in photog. emulsions is exemplified.

IT 263254-10-0

RL: TEM (Technical or engineered material use); USES (Uses)
(cyanine dyes as photog. sensitizers)

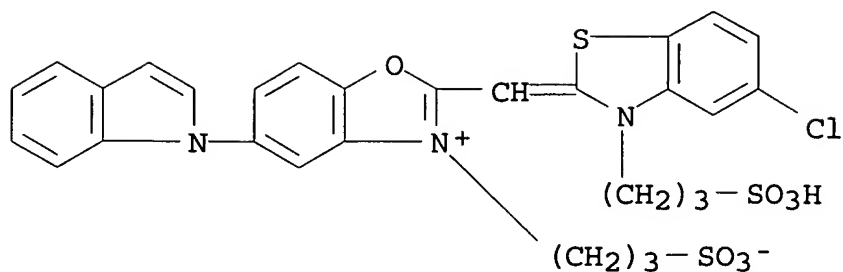
RN 263254-10-0 ZCA

CN Benzoxazolium, 2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-5-(1H-indol-1-yl)-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 263254-09-7

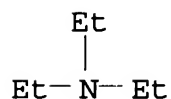
CMF C29 H26 Cl N3 O7 S3



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM C09B023-00

ICS G03C007-26; G03C001-12

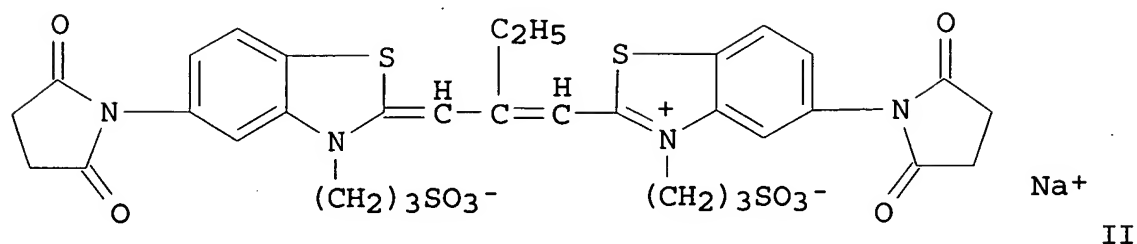
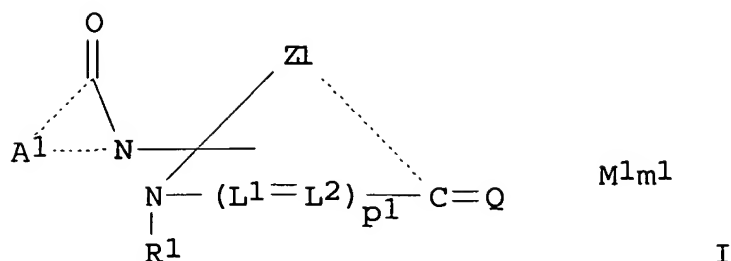
CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

IT **263254-10-0** 263254-12-2 263254-14-4RL: TEM (Technical or engineered material use); USES (Uses)
(cyanine dyes as photog. sensitizers)

L29 ANSWER 22 OF 34 ZCA COPYRIGHT 2005 ACS on STN

132:223827 Sensitizer colorants and silver halide photographic materials containing them. Hioki, Takanori (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000080297 A2 20000321, 28 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-248544 19980902.

GI



AB Highly sensitive Ag halide photog. materials with reduced residual color contain methine compds. I (Z1 = at. group required to form 5- or 6-membered N-contg. heterocyclic group, may be condensed with arom. ring; R1 = alkyl, aryl, heterocyclic group; L1, L2 = methine group; p1 = 0-1; M1 = counterion as needed to balance the charge on the mol.; m1 = no. required to neutralize the charge of the mol.; Q = group required to form methine dye; A1 = at. group required to form N-contg. heterocyclic group, except thiazoline). Thus, reaction of 5-amino-2-methylbenzothiazole with butanedioic anhydride, quaternization of the resulting 5-(2,5-dioxo-1-pyrrolidinyl)-2-methylbenzothiazole with propane sultone, further reaction with EtC(OEt)3, and purifn. with MeOH and NaOAc gave 6% product (II; λ_{\max} = 553 nm, ϵ = 87,000 in MeOH). A photog. emulsion contg. II and AgI with aspect ratio 2.8 was prepd.

IT 261170-67-6

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(methine compds. for photog. emulsions with high sensitivity and reduced residual color)

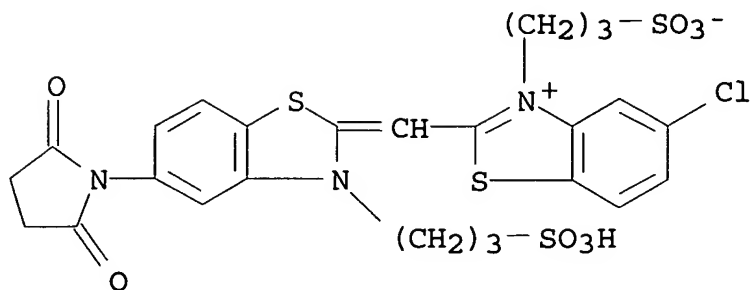
RN 261170-67-6 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(2,5-dioxo-1-pyrrolidinyl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 261170-66-5

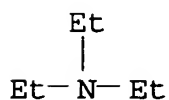
CMF C25 H24 Cl N3 O8 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM C09B023-00

ICS G03C001-12

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 74

IT 261170-67-6 261170-69-8 261170-72-3 261170-73-4

RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)

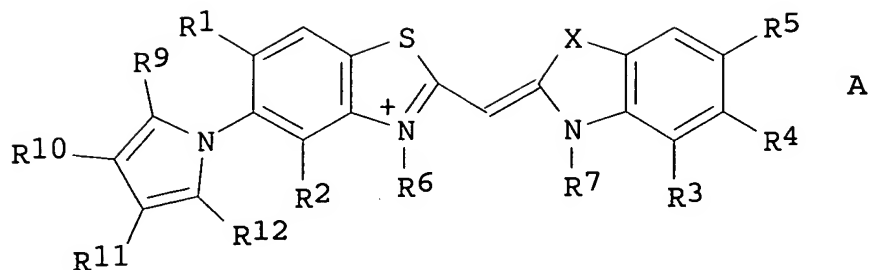
(methine compds. for photog. emulsions with high sensitivity and reduced residual color)

L29 ANSWER 23 OF 34 ZCA COPYRIGHT 2005 ACS on STN

131:80680 Silver halide color photographic material. Missfeldt, Michael (Agfa-Gevaert A.-G., Germany). U.S. US 5919613 A 19990706, 16 pp., Cont.-in-part of U.S. Ser. No. 858,354, abandoned. (English).

CODEN: USXXAM. APPLICATION: US 1998-148743 19980904. PRIORITY: DE 1996-19621322 19960528; DE 1996-19638568 19960920; US 1997-858354 19970519..

GI



AB A silver halide color photog. material contains at least one silver halide emulsion layer which is spectrally sensitized with a monomethinecyanine dye of the formula I (R1-5 = H, halogen, alkyl, methoxy, aryl, 1-pyrrolyl, 2-pyrrolyl, 3-pyrrolyl, 2-furanyl, 2-thienyl, 3-thienyl, 1-indolyl, N-carbazolyl, N-isoindolyl, or R4, together with R3 or R5, may form a residue necessary to complete an optionally substituted fused benzene ring or R4, together with R3, may form a residue necessary to complete an optionally substituted fused naphthalene ring; R6, R7 = alkyl, sulfoalkyl, carboxyalkyl, (CH₂)_nSO₂NHSO₂-alkyl, (CH₂)_nSO₂NHCO-alkyl, (CH₂)_nCONHSO₂-alkyl, or (CH₂)_nCONHCO-alkyl (n = 1-6); X = O, S, Se, NR₈ where R₈ = optionally substituted alkyl; R₉ = H, an arom. residue, or, together with R₁₀, a residue necessary to complete a fused benzene ring; R₁₀ = when together with R₉ or R₁₁, a residue necessary to complete a fused benzene ring; R₁₁ = H, an arom. residue, or, together with R₁₀ or R₁₂, a residue necessary to complete a fused benzene ring; R₁₂ = H, an arom. residue, or, together with R₁₁, a residue necessary to complete a fused benzene ring; A = an optionally present anion). The silver halide color photog. material exhibits increased blue sensitivity.

IT 200434-42-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. and use as spectral photog. sensitizer)

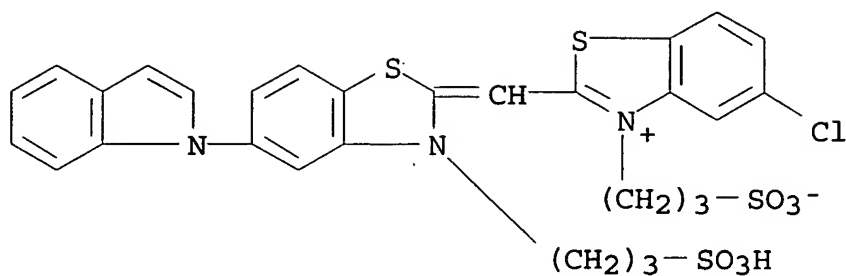
RN 200434-42-0 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-indol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 200434-41-9

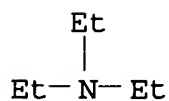
CMF C29 H26 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IT 200434-38-4 228546-03-0 228546-04-1
228546-06-3 228546-12-1

RL: TEM (Technical or engineered material use); USES (Uses)
(spectral photog. sensitizer)

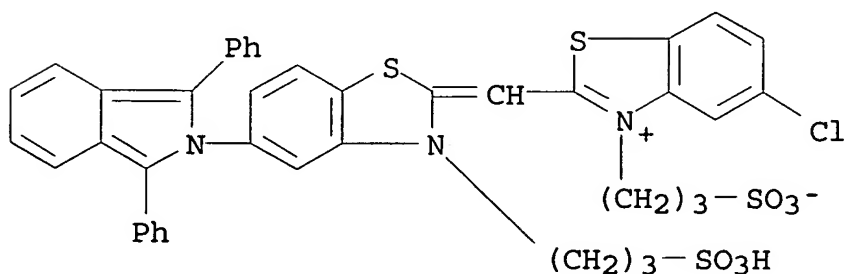
RN 200434-38-4 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1,3-diphenyl-2H-isoindol-2-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 200434-37-3

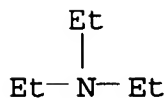
CMF C41 H34 Cl N3 O6 S4



CM 2

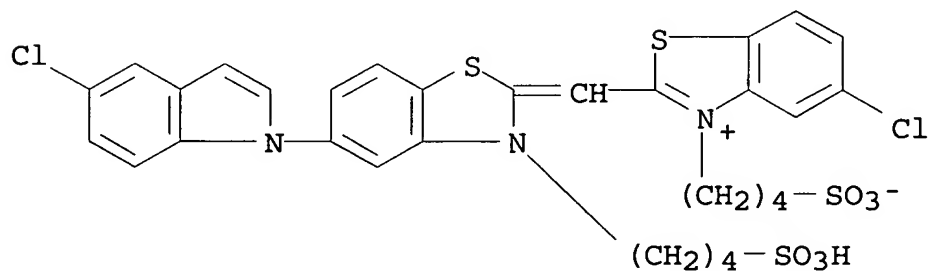
CRN 121-44-8

CMF C6 H15 N



RN 228546-03-0 ZCA

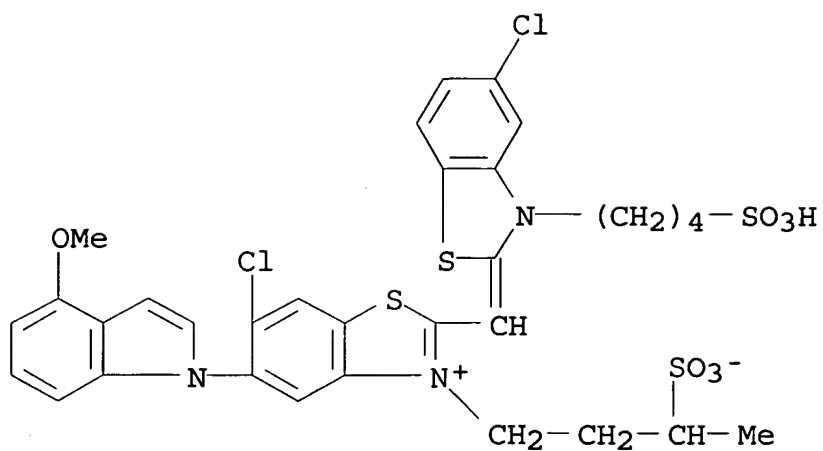
CN Benzothiazolium, 5-chloro-2-[[5-(5-chloro-1H-indol-1-yl)-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]methyl]-3-(4-sulfobutyl)-, inner salt, potassium salt (9CI) (CA INDEX NAME)



● K

RN 228546-04-1 ZCA

CN Benzothiazolium, 6-chloro-2-[[5-chloro-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]methyl]-5-(4-methoxy-1H-indol-1-yl)-3-(3-sulfobutyl)-, inner salt, potassium salt (9CI) (CA INDEX NAME)



● K

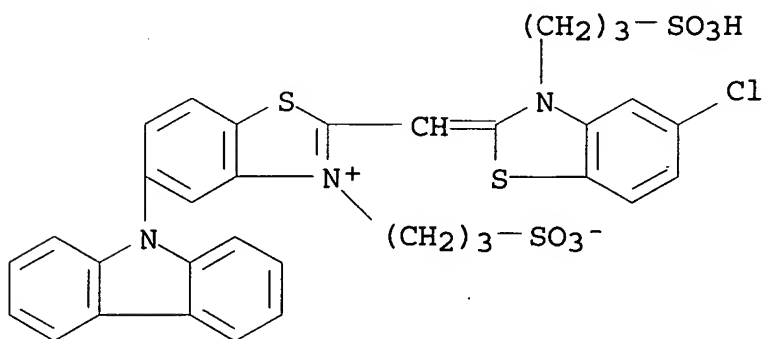
RN 228546-06-3 ZCA

CN Benzothiazolium, 5-(9H-carbazol-9-yl)-2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 228546-05-2

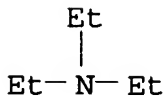
CMF C33 H28 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



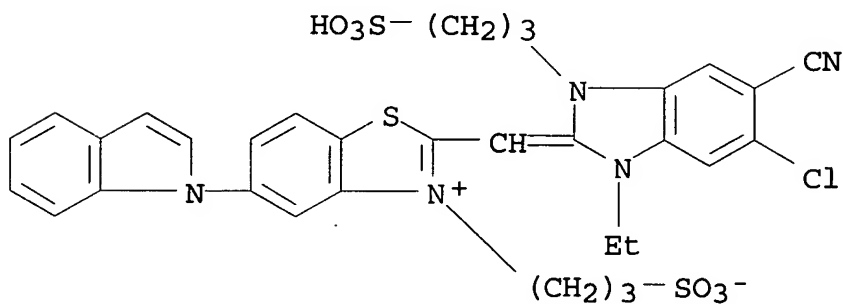
RN 228546-12-1 ZCA

CN Benzothiazolium, 2-[[5-chloro-6-cyano-3-ethyl-1,3-dihydro-1-(3-sulfopropyl)-2H-benzimidazol-2-ylidene]methyl]-5-(1H-indol-1-yl)-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 228546-11-0

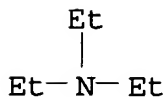
CMF C32 H30 Cl N5 O6 S3



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C001-18

INCL 430583000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 200434-42-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. and use as spectral photog. sensitizer)

IT 200434-38-4 200434-40-8 228545-84-4 228545-85-5
228545-86-6 228545-87-7 228545-88-8 228545-89-9 228545-91-3

228545-93-5 228545-95-7 228545-97-9 228545-99-1 228546-01-8
 228546-02-9 **228546-03-0** **228546-04-1**
228546-06-3 228546-08-5 228546-10-9 **228546-12-1**

RL: TEM (Technical or engineered material use); USES (Uses)
 (spectral photog. sensitizer)

L29 ANSWER 24 OF 34 ZCA COPYRIGHT 2005 ACS on STN

130:215802 Photographic element comprising mixture of sensitizing dyes.
 Parton, Richard Lee; Lewis, John Derek; Dobles, Thomas Robert;
 Klingman, Karen J.; Stegman, David Alan; Kahn, Bruce E.; Smith,
 Teresa A. (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 902321
 A1 19990317, 54 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES,
 FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.
 (English). CODEN: EPXXDW. APPLICATION: EP 1998-203047 19980911.
 PRIORITY: US 1997-58796 19970915; US 1997-58992 19970915.

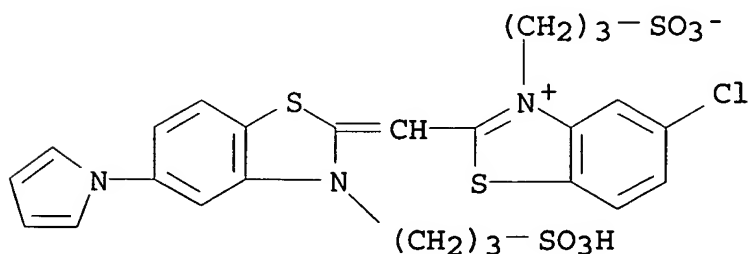
AB A photog. element comprises at least one silver halide emulsion
 layer in which the silver halide has been sensitized with a first
 blue-sensitizing dye having a value of λ_1 (wavelength of max.
 absorption of a silver halide emulsion layer sensitized with the
 dye) less than or equal to about 475 nm and a second
 blue-sensitizing dye having a value of λ_2 (wavelength of max.
 absorption of a silver halide emulsion layer sensitized with the
 dye), wherein λ_1 is longer than λ_2 and λ_1 and
 λ_2 are sepd. by an energy gap, ΔE , which does not
 exceed 0.12 eV, where ΔE is defined by the relationship
 $\Delta E = 1.25 \times 10^3 (1/\lambda_1 - 1/\lambda_2) \leq 12.0$, wherein
 neither the first nor the second dye contains selenium. The silver
 halide emulsion layer is preferably chem. sensitized with a gold
 compd. and preferably with the combination of a gold compd. and a
 disulfide compd.

IT 161710-68-5 220939-89-9

RL: TEM (Technical or engineered material use); USES (Uses)
 (silver halide photog. emulsions spectrally sensitized by dye
 mixts. contg.)

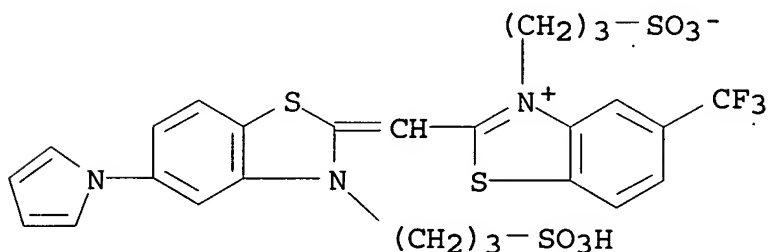
RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-
 2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt
 (9CI) (CA INDEX NAME)



RN 220939-89-9 ZCA

CN Benzothiazolium, 2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-5-(trifluoromethyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-29

ICS G03C001-16; G03C001-09

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

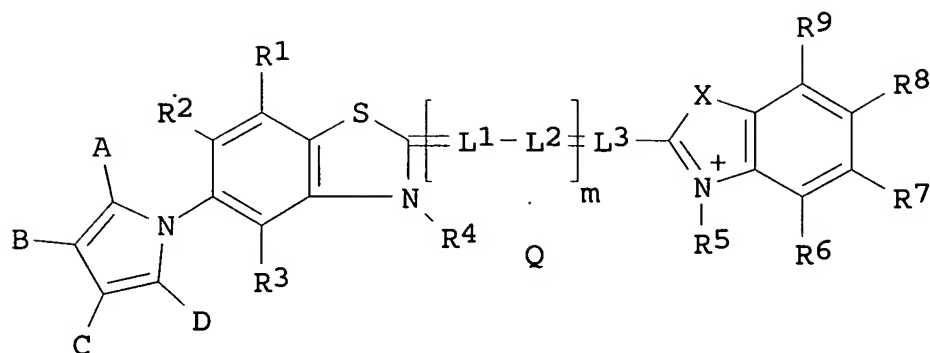
IT 55425-22-4 60507-44-0 94393-20-1 135472-98-9 138450-95-0
159632-55-0 161710-68-5 161710-76-5 169324-94-1
174079-63-1 177951-67-6 199338-21-1 220939-85-5 220939-86-6
220939-87-7 220939-88-8 220939-89-9 220939-90-2
220939-91-3 220939-92-4

RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide photog. emulsions spectrally sensitized by dye mixts. contg.)

L29 ANSWER 25 OF 34 ZCA COPYRIGHT 2005 ACS on STN

130:59001 Light-sensitive silver halide emulsion and photographic material using the same. Borst, Hans-Ulrich; Bergthaller, Peter; Misfeldt, Michael; Siegel, Joerg (Agfa-Gevaert AG, Germany). Ger. Offen. DE 19724182 A1 19981210, 32 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1997-19724182 19970609.

GI



I

AB The title emulsion is chem. ripened by a Se compd. showing no Se-H bonding and/or a Te compd. showing no Te-H bonding and is spectrally sensitized by I [R1-3, R6-9 = H, halo, alkyl, methoxy, aryl, 1-pyrrolyl, 2-pyrrolyl, 3-pyrrolyl, 2-furanyl, 3-furanyl, 2-thienyl, 3-thienyl, 1-indolyl, 2-isoindolyl, N-carbazolyl; R4, R5 = alkyl, sulfoalkyl, carboxyalkyl, (CH₂)_nSO₂NHSO₂-alkyl, (CH₂)_nSO₂NHCO-alkyl, (CH₂)_nCONHSO₂-alkyl, (CH₂)_nCONHCO-alkyl; n = 1-6; X = O, S, Se, NR₁₀; R₁₀ = alkyl; A, C, D = H, arom. residue; A together with B may form benzene ring; B together with C may form benzene ring; C together with D may form benzene ring; Q = counter anion, cation; m = 0, 1]. The material shows high sensitivity and reduced fog.

IT 200434-42-0

RL: MOA (Modifier or additive use); USES (Uses)
(photog. silver halide emulsion sensitized with)

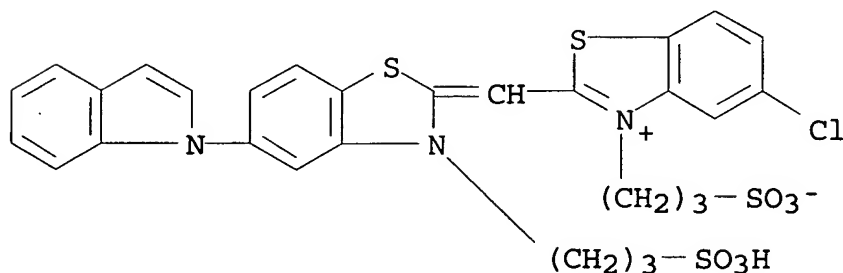
RN 200434-42-0 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-indol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 200434-41-9

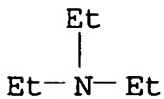
CMF C29 H26 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C001-09

ICS G03C007-26; G03C007-392

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 16470-45-4 106518-54-1 121168-08-9 124905-14-2
200434-42-0 207690-20-8 207690-23-1 207690-26-4
217312-24-8RL: MOA (Modifier or additive use); USES (Uses)
(photog. silver halide emulsion sensitized with)

L29 ANSWER 26 OF 34 ZCA COPYRIGHT 2005 ACS on STN

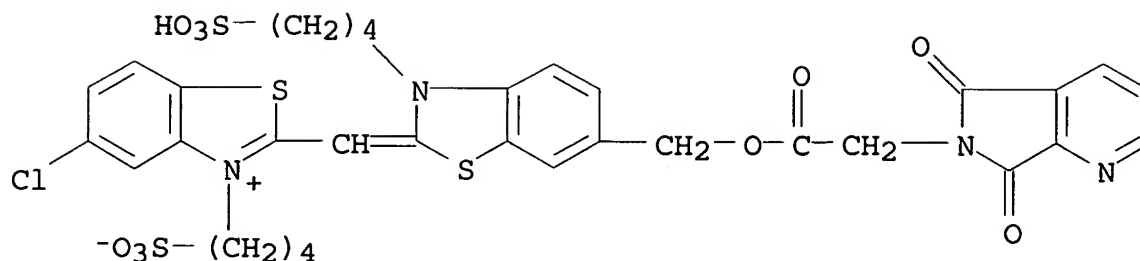
129:10582 Silver halide photographic materials using sensitizing dye.
Oya, Toyohisa (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo
Koho JP 10104775 A2 19980424 Heisei, 21 pp. (Japanese). CODEN:
JKXXAF. APPLICATION: JP 1996-259415 19960930.AB Title materials contain ≥ 1 compd. D1k1Ak2 (D1 = atoms forming
a methine dye structure; A = group released by nucleophilic attack;
k1 = 1, 2; k2 = 1-4). The materials show high spectral sensitivity
and high-quality images can be formed on it with low residual color
stain.

IT 207574-14-9

RL: DEV (Device component use); USES (Uses)
(methine sensitizing dye for silver halide photog. material)

RN 207574-14-9 ZCA

CN Benzothiazolium, 5-chloro-2-[[6-[[[(5,7-dihydro-5,7-dioxo-6H-
pyrrolo[3,4-b]pyridin-6-yl)acetyl]oxy]methyl]-2-(4-sulfobutyl)-2(3H)-
benzothiazolylidene]methyl]-3-(4-sulfobutyl)-, inner salt, potassium
salt (9CI) (CA INDEX NAME)



● K

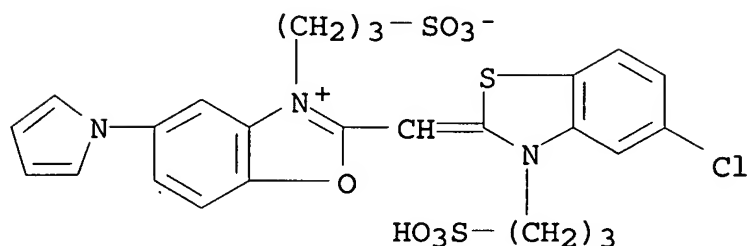
- IC ICM G03C001-12
ICS G03C007-00
- CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41
- IT **207574-14-9** 207574-15-0
RL: DEV (Device component use); USES (Uses)
(methine sensitizing dye for silver halide photog. material)
- L29 ANSWER 27 OF 34 ZCA COPYRIGHT 2005 ACS on STN
- 128:95283 High-bromide photographic emulsion containing restricted high-iodide epitaxial phase on (111) major faces of tabular grains beneath surface silver halide. Reed, Kenneth Joseph; Hansen, Jeffrey Christen (Eastman Kodak Co., USA). U.S. US 5698387 A 19971216, 30 pp. (English). CODEN: USXXAM. APPLICATION: US 1996-706081 19960830.
- AB A photog. emulsion is disclosed comprised of a dispersing medium and radiation-sensitive grains with greater than 50 percent of total grain projected area being accounted for by tabular grains comprised of (1) a tabular host portion contg. greater than 50 mol percent bromide, based on silver, and having spaced-parallel (111) major faces, (2) a first epitaxial phase contg. greater than 90 mol percent iodide, based on silver, accounting for less than 60 percent of total silver and overlying from 15 to 90 percent of the major faces, and (3) a surface silver halide of a fcc. crystal lattice structure overlying at least a portion of the first epitaxial phase.
- IT **161710-84-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(spectral sensitizer for high-bromide photog. emulsion contg. restricted high-iodide epitaxial phase)
- RN 161710-84-5 ZCA
- CN Benzoxazolium, 2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-,

inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161710-83-4

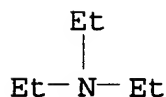
CMF C25 H24 Cl N3 O7 S3



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C001-035

ICS G03C001-09; G03C001-10

INCL 430567000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 51650-39-6 55425-23-5 75260-71-8 161710-84-5

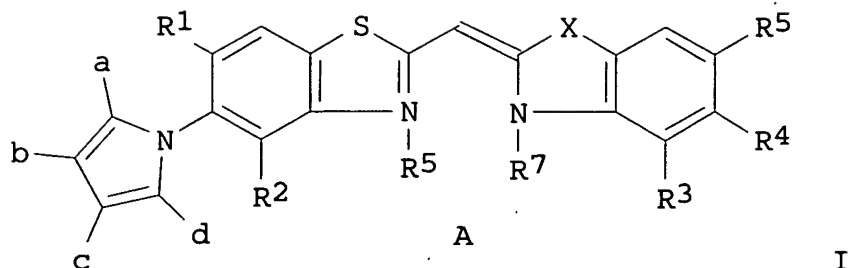
188432-62-4 188432-64-6 188432-67-9

RL: TEM (Technical or engineered material use); USES (Uses)
(spectral sensitizer for high-bromide photog. emulsion contg.
restricted high-iodide epitaxial phase)

L29 ANSWER 28 OF 34 ZCA COPYRIGHT 2005 ACS on STN

128:82074 Color photographic recording material with monomethinecyanine dye. Missfeldt, Michael (Agfa-Gevaert A.-G., Germany). Ger. Offen. DE 19638568 A1 19971204, 16 pp. (German). CODEN: GWXXBX.
APPLICATION: DE 1996-19638568 19960920. PRIORITY: DE 1996-19621322 19960528.

GI



AB In the title material with at least one Ag halide emulsion layer spectrally sensitized by a monomethine cyanine dye, the monomethine cyanine dye is represented by a general formula I (R1-5 = H, halo, alkyl, methoxy, aryl, 1-pyrrolyl, 2-pyrrolyl, 3-pyrrolyl, 2-furanyl, 3-furanyl, 2-thienyl, 3-thienyl, 1-indolyl, N-carbazolyl, 2-isoindolyl; R4 together with R3 or R5 may form substituted benzene ring; R4 together with R3 may form substituted naphthalene ring; R6, R7 = alkyl, sulfoalkyl, carboxyalkyl, $-(CH_2)_n-SO_2-NH-SO_2-alkyl$, $-(CH_2)_n-SO_2-NH-CO-alkyl$, $-(CH_2)_n-CO-NH-SO_2-alkyl$, $-(CH_2)_n-CO-NH-CO-alkyl$; n = 1-6; X = O, S, Se, NR8; R8 = substituted alkyl).

IT 200434-38-4

RL: MOA (Modifier or additive use); USES (Uses)

(color photog. recording material spectrally sensitized by)

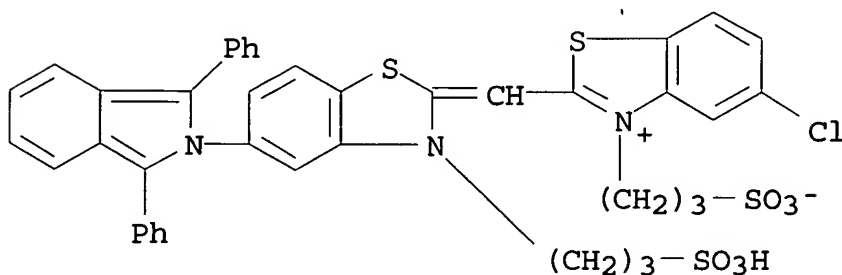
RN 200434-38-4 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1,3-diphenyl-2H-isoindol-2-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 200434-37-3

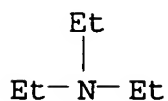
CMF C41 H34 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IT 200434-42-0P

RL: MOA (Modifier or additive use); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (color photog. recording material spectrally sensitized by)

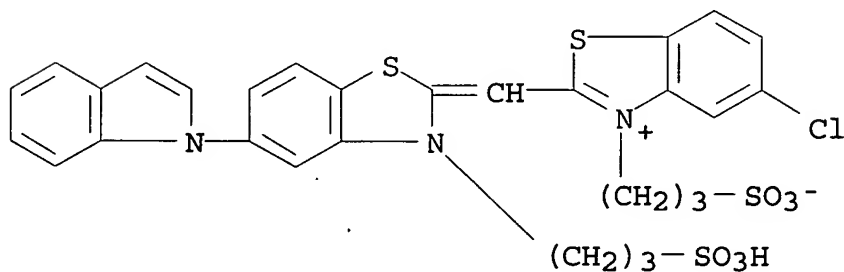
RN 200434-42-0 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-indol-1-yl)-3-(3-sulfopropyl)-
 2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt,
 compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 200434-41-9

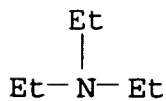
CMF C29 H26 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C007-392

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and

Other Reprographic Processes)

Section cross-reference(s): 41

IT 200434-38-4 200434-40-8

RL: MOA (Modifier or additive use); USES (Uses)

(color photog. recording material spectrally sensitized by)

IT 200434-42-0P

RL: MOA (Modifier or additive use); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

(color photog. recording material spectrally sensitized by)

L29 ANSWER 29 OF 34 ZCA COPYRIGHT 2005 ACS on STN

126:244769 Tabular-grain photographic emulsion containing restricted high-iodide surface phase. Reed, Kenneth J.; Hansen, Jeffrey C. (Eastman Kodak Company, USA). U.S. US 5604086 A 19970218, 33 pp., Cont.-in-part of U.S. Ser. No. 412,811, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1996-620773 19960322. PRIORITY: US 1995-412811 19950329.

AB A photog. emulsion is disclosed comprised of a dispersing medium and radiation-sensitive silver halide grains with greater than 50% of total grain projected area being accounted for by grains contg. a host portion of a fcc. rock salt crystal lattice structure and a first epitaxial phase contg. greater than 90 mol% iodide. The host portion is tabular, being bounded by an exterior having first and second parallel major faces joined by a peripheral edge. The first epitaxial phase accounts for less than 60% of total silver and the first epitaxial phase is restricted to a portion of the exterior of the host portion that includes at least 15% of the major faces.

IT 161710-84-5

RL: TEM (Technical or engineered material use); USES (Uses)

(spectral sensitizer for tabular-grain photog. emulsion contg.

restricted high-iodide surface phase)

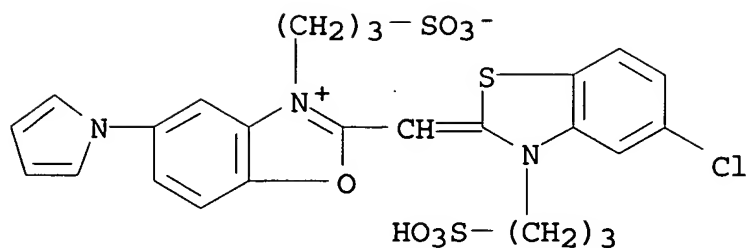
RN 161710-84-5 ZCA

CN Benzoxazolium, 2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161710-83-4

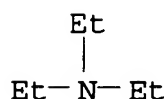
CMF C25 H24 Cl N3 O7 S3



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C001-035

INCL 430567000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 51650-39-6 55425-23-5 161710-84-5 188432-62-4
188432-64-6 188432-67-9RL: TEM (Technical or engineered material use); USES (Uses)
(spectral sensitizer for tabular-grain photog. emulsion contg.
restricted high-iodide surface phase)

L29 ANSWER 30 OF 34 ZCA COPYRIGHT 2005 ACS on STN

125:261131 Photographic print material. Nielsen, Ralph Bendt; Odell, Scott Francis; Pawlak, John Lawrence (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 727705 A1 19960821, 57 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1996-101415 19960201. PRIORITY: US 1995-390442 19950217.

AB A photog. print material comprises high-chloride silver halide emulsions having greater than 90 mol% silver chloride, where the material comprises a yellow dye-forming layer sensitive to blue light comprising a high-chloride silver halide emulsion with a peak spectral sensitivity to blue light less than 475 nm, preferably from 440-475 nm, and a coupler dispersion comprising a yellow dye-forming coupler and a water-insol. polymer. The photog. print material with both short-blue sensitivity and a polymer dispersion in the yellow dye-forming blue-sensitive layer shows a synergistic improvement in color reprodn. in accordance with the invention, providing for a color print with less color error than seen for materials comprising

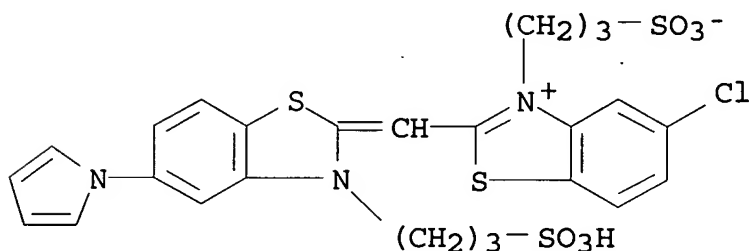
only one of the components. The improvement is most notable for yellow and green colored areas of a color print.

IT 161710-68-5 161710-70-9 161710-83-4

RL: TEM (Technical or engineered material use); USES (Uses)
(blue-sensitizing dye for color photog. print materials)

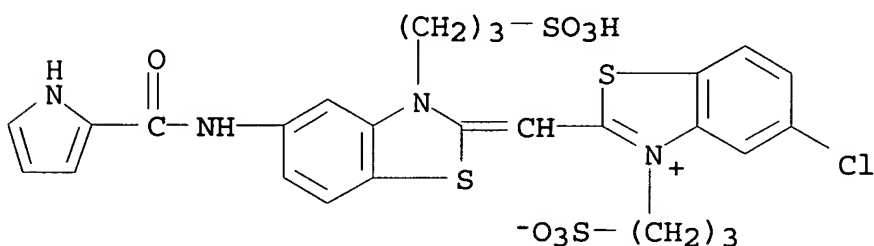
RN 161710-68-5 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



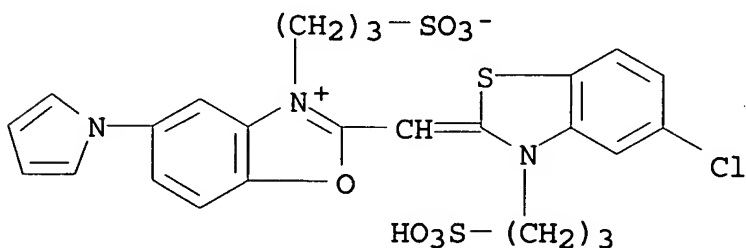
RN 161710-70-9 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-[(1H-pyrrol-2-ylcarbonyl)amino]-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 161710-83-4 ZCA

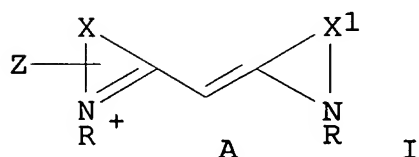
CN Benzoxazolium, 2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C007-388
 ICS G03C007-396; G03C001-12; G03C001-16
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 61483-01-0 113477-02-4 138450-95-0 142110-07-4 155621-19-5
 159632-55-0 **161710-68-5** **161710-70-9**
 161710-74-3 161710-76-5 **161710-83-4** 169324-94-1
 169324-95-2 174079-63-1 177951-67-6 182360-32-3
 RL: TEM (Technical or engineered material use); USES (Uses)
 (blue-sensitizing dye for color photog. print materials)

L29 ANSWER 31 OF 34 ZCA COPYRIGHT 2005 ACS on STN
 125:44966 Blue-sensitized silver halide emulsion with particular addenda. Johansson, Katy Pat; Lok, Roger (Eastman Kodak Company, USA). Eur. Pat. Appl. EP 709726 A1 19960501, 24 pp. DESIGNATED STATES: R: BE, CH, DE, FR, GB, IT, LI, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1995-202906 19951026. PRIORITY: US 1994-331786 19941031.

GI

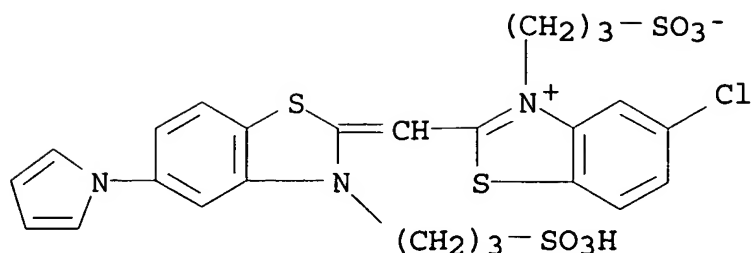


AB A silver halide photog. element comprises a silver halide emulsion sensitized by a blue dye of formula I (X, X1 = the atoms necessary to complete a 5- or 6-membered heterocyclic nucleus, X may be further substituted and X1 is substituted or unsubstituted; R, R1 = substituted or unsubstituted aryl or alkyl; Z = substituted or unsubstituted aryl or heteroaryl; A = counterion as needed to balance the charge of the mol.) and the emulsion also contains a thiosulfonate, a sulfinatate, and an alkynylamine.

IT **161710-68-5**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photog. spectral sensitizer for blue-sensitized silver halide emulsions)

RN 161710-68-5 ZCA

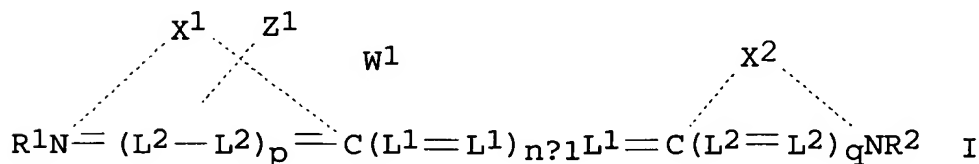
CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolyliidene]methyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-10
ICS G03C001-34
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 159632-55-0 161710-68-5 177951-67-6
RL: TEM (Technical or engineered material use); USES (Uses)
(photog. spectral sensitizer for blue-sensitized silver halide emulsions)

L29 ANSWER 32 OF 34 ZCA COPYRIGHT 2005 ACS on STN
125:22196 Silver halide photographic material and color image formation method. Yokozawa, Akihito (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08062762 A2 19960308 Heisei, 31 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-216694 19940819.

GI



AB The photog. material is characterized by that (1) the Ag halide emulsion contains ≥ 95 mol% AgCl and is spectrally sensitized by a methine dye I [X1, X2 = nonmetallic group forming 5- or 6-membered heterocycle; X1, X2 may be substituted; n = 1-4; p, q = 0, 1; L1, L2 = (substituted) methyne; R1, R2 = (substituted) aliph. or arom., Z1 = Ar(L3)m; Ar = (substituted) arom.; L3 = connecting group; m = 0, 1; W1 = counter ion] and (2) the Ca content in the photog. layers is ≤ 10 mg/m². The method for the photog. material contg. a yellow, magenta, and cyan coupler involves (1) scanning exposure at $\leq 10^{-4}$ and development or (2) development

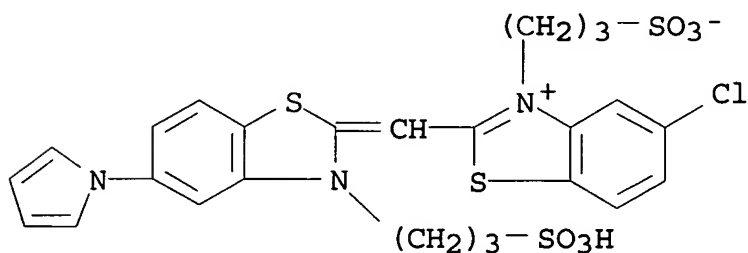
for ≤ 25 s and processing for ≤ 120 s.

IT 177405-38-8

RL: DEV (Device component use); USES (Uses)
(spectral sensitizer; silver halide photog. material and color
image formation method)

RN 177405-38-8 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-
2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt,
sodium salt (9CI) (CA INDEX NAME)



IC ICM G03C001-14

ICS G03C001-035; G03C001-047; G03C005-08; G03C007-00; G03C007-26;
G03C007-30

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

IT 158259-06-4 177405-35-5 177405-36-6 177405-37-7

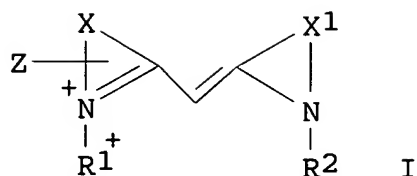
177405-38-8 177405-39-9

RL: DEV (Device component use); USES (Uses)
(spectral sensitizer; silver halide photog. material and color
image formation method)

L29 ANSWER 33 OF 34 ZCA COPYRIGHT 2005 ACS on STN

124:215867 Blue-sensitizing dye with heterocyclic substituent.. Dobles,
Thomas Robert; Reed, Kenneth Joseph; Parton, Richard Lee; Henry,
Marian Sue; Ferguson, Pamela McCue; Spitzner, Nona Veith; Stegman,
David Alan; Link, Steven George (Eastman Kodak Co., USA). Eur. Pat.
Appl. EP 683427 A1 19951122, 22 pp. DESIGNATED STATES: R: BE, CH,
DE, FR, GB, IT, LI, NL. (English). CODEN: EPXXDW. APPLICATION: EP
1995-201291 19950517. PRIORITY: US 1994-245336 19940518.

GI



AB A photog. element having a silver halide emulsion spectrally sensitized to blue light by a dye of formula I, wherein X and X1 each independently represent the atoms necessary to complete a thiazole, benzothiazole, naphthothiazole, oxazole, benzoxazole, naphthoxazole, selenazole, benzoselenazole, naphthoselenazole, imidazole, benzimidazole, or naphthoimidazole ring and X may be further substituted and X1 substituted or unsubstituted; Z represents a pyrrole or furan ring (although Z could represent any heterocyclic arom. ring when it is directly appended to the ring formed by X and N); R1 and R2 each independently represent a substituted or unsubstituted hydrocarbon group contg. 1 to 10 carbon atoms; and A represents a counter ion as needed to balance the charge of the mol., to have a max. blue sensitivity at less than 485 nm. The dye allows the element to have good color reprodn. while still provides good speed despite the shorter blue sensitivity.

IT 161710-69-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(blue-sensitizing spectral photog. sensitizer)

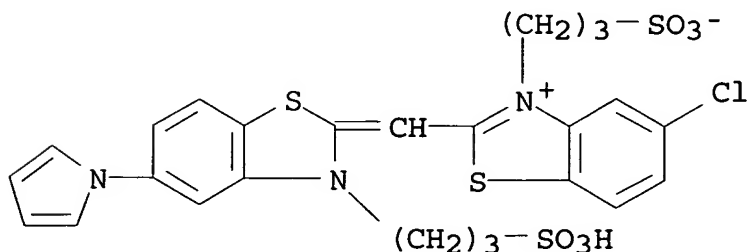
RN 161710-69-6 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161710-68-5

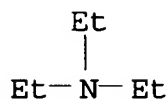
CMF C25 H24 Cl N3 O6 S4



CM 2

CRN 121-44-8

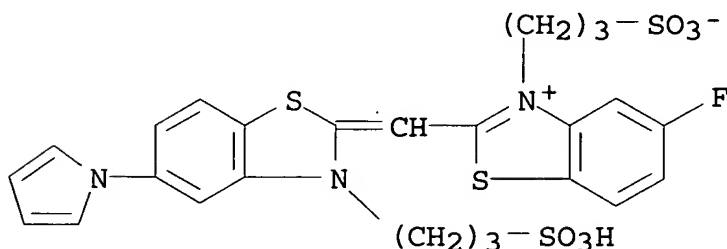
CMF C6 H15 N



IT 174079-68-6

RL: TEM (Technical or engineered material use); USES (Uses)
(blue-sensitizing spectral photog. sensitizer)

RN 174079-68-6 ZCA

CN Benzothiazolium, 5-fluoro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt
(9CI) (CA INDEX NAME)

IC ICM G03C001-12

ICS G03C001-14; G03C001-16

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

IT 161710-69-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(blue-sensitizing spectral photog. sensitizer)IT 161710-74-3 174079-63-1 174079-64-2 174079-65-3 174079-66-4
174079-67-5 174079-68-6 174079-69-7 174079-70-0
174079-71-1RL: TEM (Technical or engineered material use); USES (Uses)
(blue-sensitizing spectral photog. sensitizer)

L29 ANSWER 34 OF 34 ZCA COPYRIGHT 2005 ACS on STN

122:200967 Photographic multilayer elements. Anon. (UK). Research
Disclosure, 362, 291-303 (No. 36216) (English) 1994. RD 362016
19940610. CODEN: RSDSBB. ISSN: 0374-4353. PRIORITY: RD
1994-362016 19940610. OTHER SOURCES: MARPAT 122:200967.

AB Examples of color multilayer photog. elements are described which use blue-, red-, and green-sensitizing dyes and their combinations providing. high sensitivity.

IT 161710-69-6 161710-71-0 161710-84-5

RL: DEV (Device component use); USES (Uses)

(color multilayer photog. film with emulsion layer sensitized with)

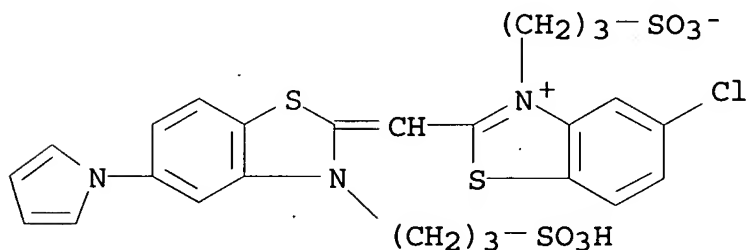
RN 161710-69-6 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161710-68-5

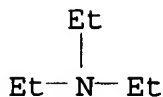
CMF C25 H24 Cl N3 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



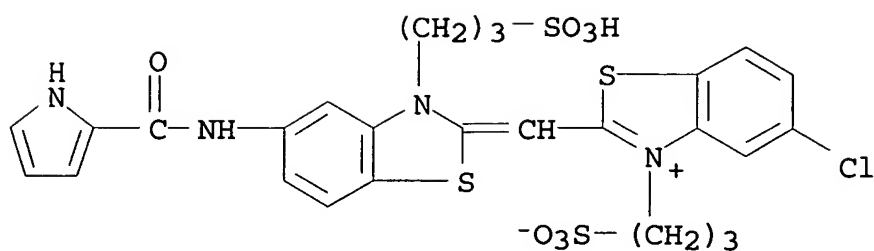
RN 161710-71-0 ZCA

CN Benzothiazolium, 5-chloro-2-[[5-[(1H-pyrrol-2-ylcarbonyl)amino]-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161710-70-9

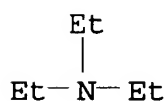
CMF C26 H25 Cl N4 O7 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



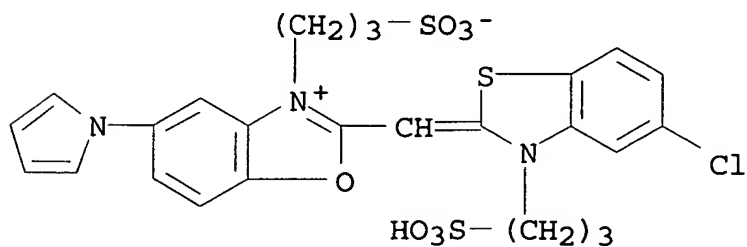
RN 161710-84-5 ZCA

CN Benzoxazolium, 2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-
 benzothiazolylidene]methyl]-5-(1H-pyrrol-1-yl)-3-(3-sulfopropyl)-,
 inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX
 NAME)

CM 1

CRN 161710-83-4

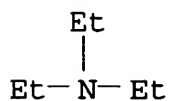
CMF C25 H24 Cl N3 O7 S3



CM 2

CRN 121-44-8

CMF C6 H15 N



CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

IT 23368-55-0 23568-98-1 27268-50-4 30377-70-9 52049-36-2
63148-90-3 64285-48-9 158259-06-4 158259-08-6 160649-36-5
161710-69-6 161710-71-0 161710-73-2
161710-75-4 161710-77-6 161710-78-7 161710-80-1 161710-81-2
161710-82-3 **161710-84-5** 161710-85-6 161710-86-7
161710-88-9 161710-89-0 161710-91-4 161710-92-5 161710-94-7
RL: DEV (Device component use); USES (Uses)
(color multilayer photog. film with emulsion layer sensitized
with)

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